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the MODERN HOSPITAL

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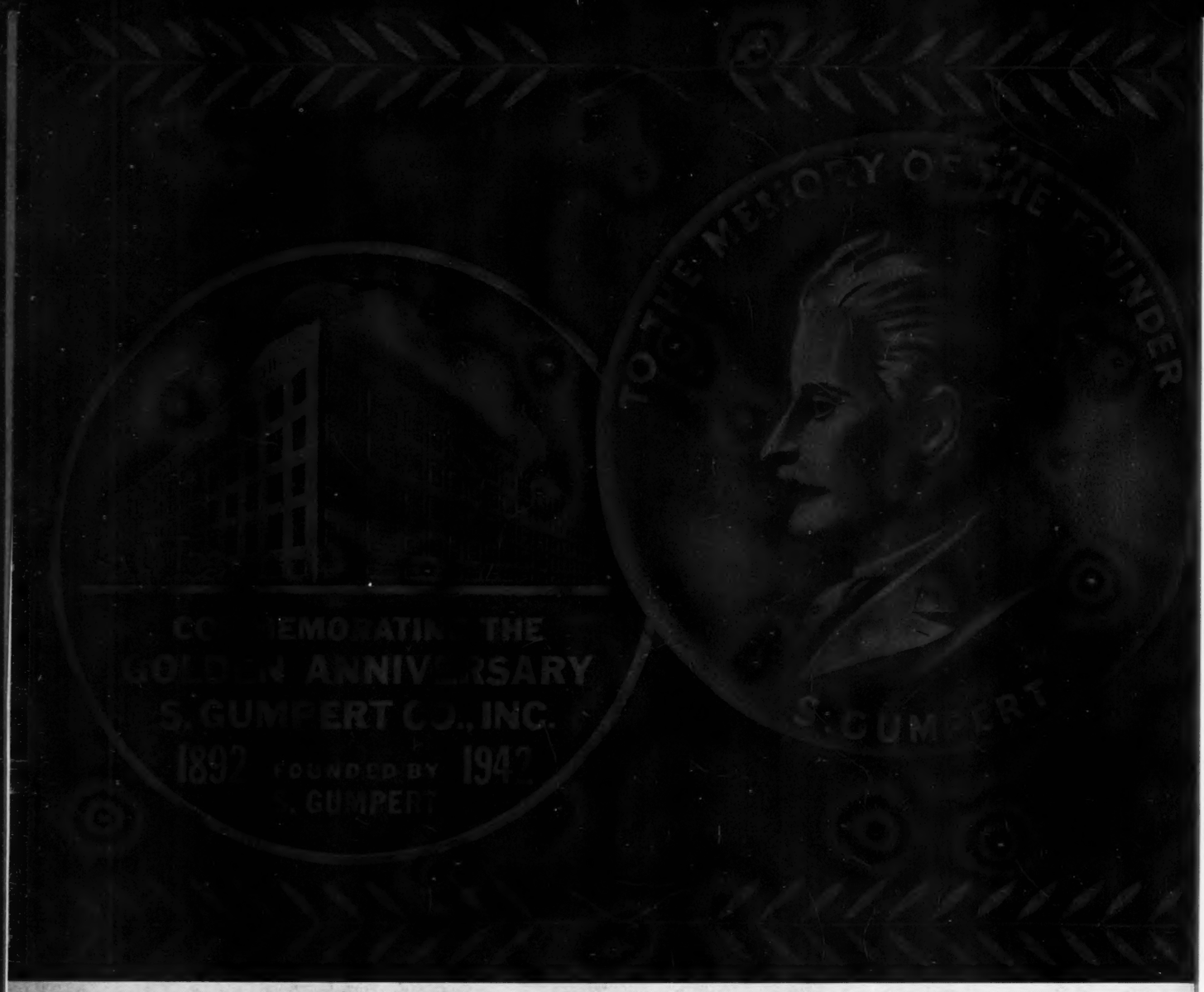

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Just in Passing—

WAR has finally come. The first bomb dropped on Pearl Harbor united the American people with a swiftness and effectiveness that no amount of talk could ever have done. Tragic though the loss of life has been, this one great achievement means that "these noble dead have not died in vain."

Hospitals, of course, will be in the front ranks of civilian war efforts. Every step will be taken, quickly and effectively, to put our hospitals in readiness to meet all situations, up to and including bombing attacks on the mainland. In this effort all agencies in the hospital field will work together. The MODERN HOSPITAL will do everything possible to aid institutions in every part of the country to keep abreast of developments. The material in the present issue speaks for itself.

But when we have done everything we can to prepare for whatever may happen, let us realize that we also have a responsibility to aid in the maintenance of civilian morale and sanity. Let us resolve to keep as calm as possible, to avoid hysteria and particularly to shun hatred of the crazed, misguided enemy. Following war comes peace. While we wage war with all our might, let us prepare for peace by forswearing hate and hysteria.

READ AND PASS ALONG

	See page	Date
Administrator		
Purch. Agent	.....	.....
Supt. of Nurses	.....	.....
Surg. Supervisor	.....	.....
Dietitian	.....	.....
Housekeeper	.....	.....
Pharmacist	.....	.....
Engineer	.....	.....
Laundry Manager	.....	.....
Radiologist	.....	.....
Pathologist	.....	.....
Chief of Staff	.....	.....
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The Modern Hospital

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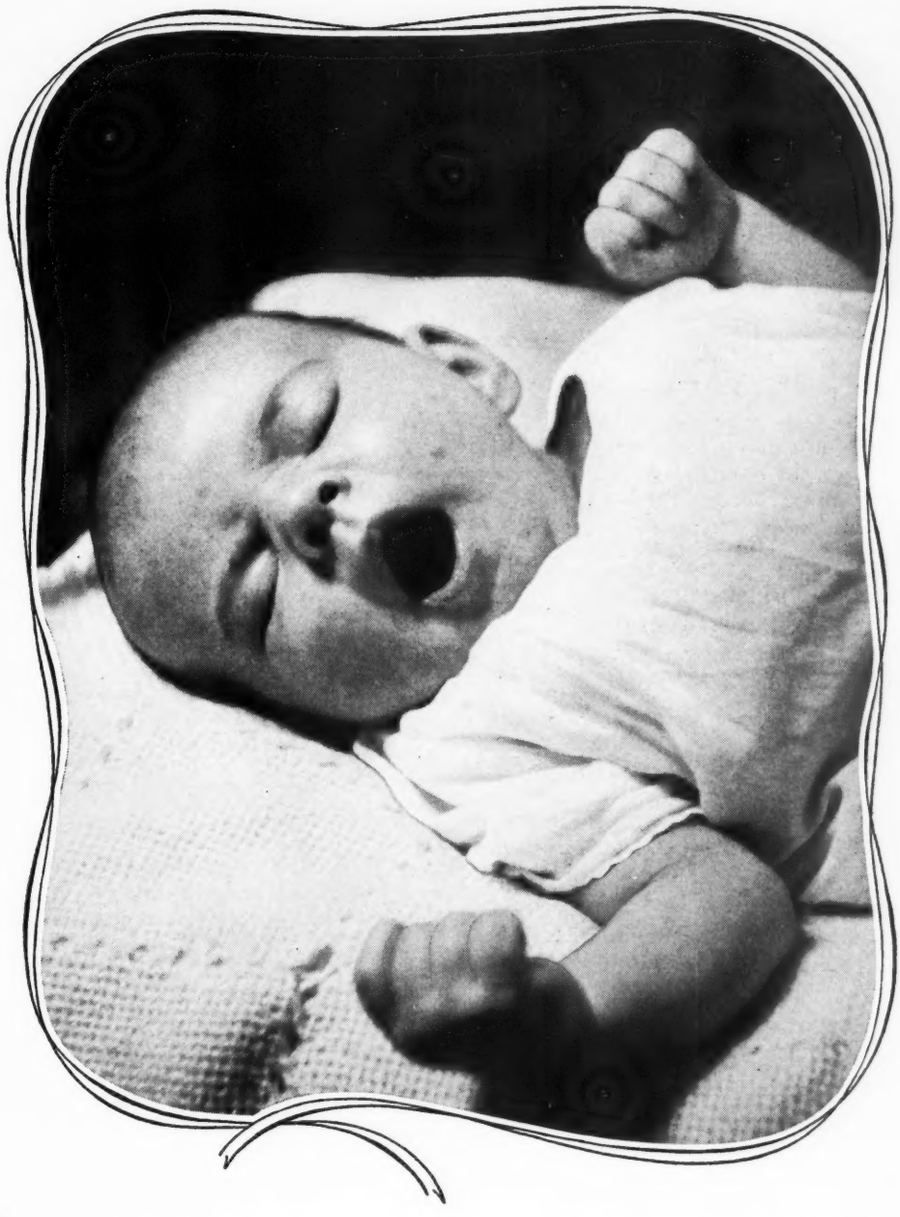
VITAMINS

FOR THE NEWLY BORN



Administration of vitamin K to the mother before delivery and to the infant immediately after birth, is effective in preventing hemorrhagic disease of the newborn. The therapy has been adopted as a routine procedure in many hospitals. One of the most active vitamin K analogues is 2-methyl-1,4-naphthoquinone, supplied as 'Proklot' (Menadione, Lilly), in tablets and oil solution. 'Proklot' is administered orally.

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WITH THE Roving Reporter

Tumor Exhibit Draws Crowds

There is no limit to the wonders to be found at a county fair but, added to the usual interesting and educational displays, those attending the McKean County Fair in Pennsylvania last September had a new experience. They were invited to inspect a tumor clinic booth, staged by the Bradford Hospital.

First, however, it is interesting to note the public relations' tie-up of the hospital's tumor clinic with the Bradford Rotary Club, which has sponsored it. In describing this work that has been going on for some time, Raymond F. Hosford, superintendent, explains that inasmuch as the hospital had the necessary expensive diagnostic and treatment equipment, as well as the housing facilities, the efforts of the Rotary Club were centered on creating public interest and spreading information regarding the importance of early diagnosis in cancer.

Bradford Hospital's tumor clinic exhibit presented at the McKean County Fair in Pennsylvania found a responsive audience. The exhibit gained favorable publicity and good will for the institution.

"The club's first step," he says, "was to write a letter to every member of the McKean County Medical Society explaining the ethical manner in which the clinic would be conducted and urging the doctors to cooperate. 'Cancer and Its Care,' a handbook for nurses, was mailed to each graduate nurse in the county.

"Through the efforts of the Rotary Club, the American Society for the Control of Cancer was brought into the program and a local branch of the Women's Field Army was organized. Their objective is to spread the information through literature and speakers that 'early cancer is curable.' The Rotary Club then purchased through the United States Public Health Service a sound film on cancer and arranged for its showing before various clubs and organizations. A physician has been present at each showing of the film to answer questions."

The interest that this work created was responsible, no doubt, for the enthusiastic response to the tumor clinic exhibit at the fair. Approximately 9000 people visited the booth during the five days, it is estimated. A graduate nurse was in attendance assisted by members of the Women's Field Army, who answered questions and distributed literature. Specimens of cancer properly labeled were on display in the rear, while in the foreground were shown x-ray pictures of normal and malignant areas.

Happy Birthday to All!

There is no one on the maintenance staff of the Methodist Hospital, Brooklyn, N. Y., who is not honored when his birthday rolls around. The first Tuesday in every month is celebration day for all those having birthdays within the month. They are requested to post their names and then—.

Too bad, but no outsiders are invited to these birthday dinners, Grace B. Hinckley, superintendent, informs us; they're for the family only. If the season is right, there is turk-y; otherwise steak or some special dish is served. There is also a birthday cake with a candle for each birthday child. The birthday cake is reserved exclusively for the celebrants, but there is other cake for everyone and ice cream, too.

Try a Colchicum

While visiting a friend in a hospital recently (a busman's holiday, if you please) your Roving Reporter spied a curious looking object on the bedside table. From this object, which resembled a small potato, grew—yes, there could be no question about it—a beautiful crocus-like flower. He couldn't believe his eyes, so he took it up and examined it. No sign of dirt anywhere, no water, merely the bulb placed on the bedside table.

"You'd better get out your notebook if you want to remember the name," his friend advised. "You'll never get it straight. Furthermore, I've been hearing so much about this notebook in which you are forever jotting down words of wisdom, I'd like to actually see it." Whereupon he spelled the name slowly—"colchicum."

That very day your Roving Reporter rushed to the nearest florist to make inquiry. If this plant did all that was claimed for it colchicum should be spelled "hospital flower." He soon discovered that it did. Here is the story.

This unostentatious looking little bulb is available at all bulb and seed stores during the late summer and early fall. It does not have to be planted in pots or window boxes; it asks for no special privileges other than to be left alone on table or desk where it will soon send forth pale lilac flowers. It does not object even to having toothpicks injected into it to make it stand straight. After it finishes blooming, however, it does demand a rest period in the earth to prepare it for the blooming season the next year.

Don't be surprised to discover, in the spring, heavy leaves coming up from where the bulbs have been planted. Soon they will turn yellow and die. Then is the time to dig out your bulbs and get them ready for their blooming season in the fall.

The miracle has come to pass on the very desk on which this is being written. It has come to pass on patients' bedside tables. Colchicum should be a best seller in the hospital gift shop each fall. No dirt, no water, no care—think of it, a real hospital flower.

Advice to Civilian Hospitals

in Providing Emergency Service

AN EMERGENCY medical service should be organized as a section of the local defense organization in each area under a director responsible to the local director of civilian defense.

The local chief of emergency medical service should be a physician of broad experience and administrative capacity, such as a health officer or an experienced hospital administrator. He should be chairman of a medical advisory council, which council might well include the local health officer, an experienced hospital administrator, a physician recommended by the local medical society because of his technical experience and executive ability, a registered nurse and a representative of the American Red Cross and other voluntary agencies.

In states on both seaboards and in vulnerable industrial areas in the interior, general hospitals, both voluntary and governmental, should organize emergency medical field units and assemble basic equipment.

An emergency medical field unit should consist of two or more squads; a physician should be appointed to command the entire unit. All members of field units should be instructed in first aid, including care of burns, prevention of shock, control of hemorrhage, emergency treatment of fractures and wounds, and in the technic of decontamination.

In hospitals of less than 200 beds, it is recommended that the emergency field unit consist of two squads, one for each twelve hour shift of the day. Each squad should be composed of two physicians (one to act as squad leader), two or more nurses and two or more orderlies or nurses' aids; the unit should be capable of functioning, if necessary, as two separate teams. At least one unit of this size is advisable for a population up to 25,000.

In hospitals of more than 200 beds, the emergency field unit should consist of two squads of four doctors, four or more nurses and four or more orderlies or nurses' aids, one of the physicians in each squad to act as squad leader. Each of the squads should be on first call during a twelve hour period of the day. The personnel and equipment of a squad should be divisible into four teams, capable of functioning, if necessary, at separate sites of disaster. At least one unit of this size or two units with small squads are advisable for populations up to 50,000.

In hospitals of more than 350 beds the emergency field unit should consist of four or more large squads, each headed by a squad leader and capable of functioning, if necessary, as multiple teams. In these large hospitals at least two squads should be on call during each twelve hour period of the day, alternating on first call on alternate days. An emergency field unit of four large squads or two units of two large squads each are advisable for a population of 100,000. In large cities, the desirable minimum would be four large squads (16 physicians and assistants) per hundred thousand.

When war broke out the medical division of the O.C.D. had ready two bulletins describing in detail the organization and functioning of emergency medical service for civilians. The accompanying article, which has the approval of the medical division, combines and abbreviates the material contained in these two publications

It will be advisable to organize physicians and nurses engaged in private practice in the area into reserve emergency field units related to hospitals. In areas with small hospitals whose resident staffs cannot be depleted, the primary emergency unit of a hospital may be made up in whole or in part of practitioners from the community.

A hospital ambulance, station wagon, small truck or passenger vehicle will be adequate to transport the personnel of a squad and its equipment, when dispatched by the control center, to a site previously designated for the establishment of a casualty station. After return trips to the hospital with casualties such vehicles will be available for transportation of additional squads and equipment if required. Special racks can be installed to accommodate four or more stretcher patients at a time.

The casualty station will occupy a predetermined site, such as the clinic of a hospital, health department or voluntary agency, a health center or substation, a school basement or other suitable place which provides shelter, protection and accessibility. It should be located, if possible, on a side street so that ambulances will not block main thoroughfares. The sites selected for casualty stations should be numbered and indicated

From the Navy Department

THE medical department of the Navy is grateful for the many offers of assistance from the civilian hospitals of our country in this time of national emergency. With war actually here, the facilities of civilian hospitals at certain times and in certain localities might well be needed to supplement the naval hospitals. This is particularly the case in those hospitals located in the large cities on the Atlantic and Pacific coasts. This arrangement by which civilian hospitals assisted the naval hospitals in their vicinities with additional space in times of special emergency worked admirably during the first World War and should do so again.

ROSS T. McINTIRE
Rear Admiral, Medical Corps
Surgeon General, U. S. Navy

From the War Department

THE grim reality of war has imposed disciplines and obligations that subordinate every personal consideration to that of national security. It is impossible to foresee how far reaching will be the requirements of the armed forces for professional personnel. At present there are 12,500 physicians and 6500 nurses in the military service to serve the minimum medico-military needs of an army which, but a short time ago, was undergoing a training program. In the previous war, 30,600 and 21,000 patriotic physicians and nurses, respectively, discharged this obligation.

Young men and young women will be needed, many who are at present performing useful duties in the splendid hospitals throughout this country. But these young people cannot respond to two loyalties or discharge a double obligation. May I emphasize, therefore, that the greatest service that hospital administrators can perform immediately in behalf of the medical welfare of the armed forces is to undertake a revaluation of their own wants to the end that the critical imperatives of the armed forces can be met.

In such a presentation it would be unjust to fail to acknowledge the like obligation, imposed on medico-military authorities, to give full regard to the welfare of civil communities. This essential factor is and will be carefully considered to the end that necessity alone shall be the measure of the sacrifice made in behalf of the life of the nation.

JAMES C. MAGEE
Major General, Medical Corps
Surgeon General, U. S. Army

on a spot map of the community. The casualty station will:

1. Serve as a center from which medical teams may be sent closer to the disaster if required.
2. Care for the less severely injured and for persons suffering from shock and hysteria until they may be permitted to return to their homes or to temporary shelters. This will protect hospitals from the burden of minor casualties which would interfere with the work of caring for the seriously injured.
3. Keep a record of all persons treated at the station and see that all casualties transferred to a hospital are tagged.

The first-aid post will occupy a temporary location, usually close to the scene of disaster, and will function as follows:

1. Care for the more severely injured, preparatory to their transfer to a hospital. No surgery other than emergency first aid is contemplated.
2. Classify the casualties so as to expedite the transfer of the seriously injured to a hospital, a most important responsibility requiring surgical judgment.
3. Direct the stream of ambulatory and of slightly injured stretcher patients and those suffering from shock or hysteria to a casualty station.
4. Tag all casualties immediately. Maintain entries in the casualty record book of all persons receiving first aid. (A nurse or nurses' aid is to be responsible for these records.)

The lists on page 110 include only the minimum medical and surgical equipment required for emergency treatment at the site of a disaster. Provision for other than essential minor surgery has been omitted.

The equipment for each physician and his team is to be carried in two portable boxes provided with handles. These two boxes should be of the same size (15 by 20 by 8 inches), and may be packed conveniently in the ambulance or other vehicle transporting the emergency squad to the site of the casualty station. The provision in separate containers of working supplies for each physician will permit the squad of a casualty station to split off one or more teams of physicians and assistants who can be dispatched with their equipment to set up advanced first-aid posts.

Decontamination stations and gas defense are discussed in "First Aid in the Prevention and Treatment of Chemical Casualties" and "Protection Against Gas," which may be obtained by application to the Office of Civilian Defense.

It is recommended that drills be called at each hospital weekly by the unit leader. A record of each drill should be kept by him, which will show the time required for complete mobilization of a squad at the designated point of departure and the condition of equipment and transportation.

It is also recommended that field drills be called unexpectedly by the local director of civilian defense at

least every three months for each hospital. Each field drill might appropriately include other units of the citizens' defense corps. The official in command at the drills should inspect the clothing, equipment and transportation of all participating units and render a report to the chief of emergency medical service and to the local director of civilian defense upon the promptness and efficiency of each unit. The larger field drills might include the canteen and other emergency relief services of the welfare department or of the local chapter of the American Red Cross or other local agency.

Precautions for the protection of civilian hospitals in communities that might become air raid targets were described by the medical division of the Office of Civilian Defense in an interview on December 11. Additional suggestions, being prepared by the subcommittee on protective procedures for hospitals, will be ready soon.

Glass breakage is a major hazard in air raids. Therefore, skylights should be replaced by wood. Windows of rooms in which daylight is unnecessary should be boarded up. A mattress-like pad filled with steel shavings to be hung outside each window is an effective but exceedingly expensive protection. Muslin is used in many English hospitals as a protection against splintering glass. It is glued over the side of the panes and onto the frames and is then varnished. Adhesive tape and cellophane, which seem to be of value in commercial buildings, are not suitable for hospitals because they do not prevent splintering.

Basements are the safest place in the building, provided the floor above is able to support the weight of the collapsed building [and provided the basements can be ventilated and kept free of water, sewage and gases from broken mains.—Ed.]. Such basements should, therefore, be cleared of stored materials and records and the space prepared for emergency use. Detailed plans for conversion of space in the basement or lower floors of the building to provide emergency operating rooms should be made and the space cleared or preparations made to clear it speedily.

Steam and water lines should be valved so that sections can be readily shut off. Alternate connections to water mains and, if possible, to sewage systems should be made. Emergency lighting systems should be provided wherever they might be essential.

Radium should be stored in a steel safe on the ground floor. The British are taking even more elaborate means to protect radium supplies, according to the Office of Civilian Defense. When a raid occurs all radium is instantly removed and placed under ground. Nitrate films should, of course, be removed entirely from the hospital and kept in some other location.

For protection against fire, attics should be cleared out completely and, if possible, whitewashed inside. If the building can support the weight, a 2 inch layer of sand on the attic floor with chicken wire stretched two inches above renders small incendiary bombs harmless.

From the Health and Welfare Services

IMMEDIATE action must be taken to complete plans and preparations for community health and welfare services for war-time needs. The day after Japan's infamous attack upon our nation state governors were urged to complete mobilization of state health and welfare services to meet the emergency.

Hospitals occupy a strategic place in a community program for the prevention and relief of suffering growing out of enemy action. They can be of material aid in facilitating community efforts to extend emergency health services rapidly and efficiently.

I urge upon all hospitals immediate and whole-hearted cooperation with state and local health authorities now working to develop and expand health facilities. The U. S. Public Health Service of the Federal Security Agency is already in contact with health authorities and is prepared to advise them on war-time health problems. The Office of Civilian Defense is also working with state and local health departments to establish necessary health services.

Hospitals with nurse training facilities, participating in the nurse training program of the federal government, are rendering valuable assistance to our victory program. We need 50,000 professional nurses to meet Army, Navy and civilian requirements. The urgency of recruiting this nursing corps has become more acute now that all our resources and energies are engaged in a two ocean conflict. The importance of speeding up this nurse training program and expediting the machinery for enlisting more trainees, therefore, cannot be stressed too highly.

I know that hospitals will serve the needs of the American nation as valiantly and unselfishly in war time as in peace time and that the hospitals will give full cooperation and assistance to our public health officials now faced with the responsibility of developing and expanding health services as rapidly as possible.

PAUL V. McNUTT
Director
Defense Health and Welfare Services

From the American Red Cross

WHILE every one of us fervently hopes that our hospitals may not be called upon to play a more than normal rôle during the present war, we must prepare for all possible contingencies.

To meet an emergency such as may confront almost any of our communities calls for co-

From the Red Cross—Cont.

operation of all local agencies well in advance of that emergency. By reason of long experience the Red Cross is recognized as the primary relief agency in time of disaster. Local chapters have reorganized and strengthened their disaster preparedness committees during the last year and now that the emergency is upon us these efforts will be redoubled.

In all of these plans hospitals play an important part. Upon the resources of local hospitals the Red Cross will have to rely when called upon to provide medical and nursing care to the injured in case of serious disaster or accident. Local hospitals and the Red Cross must work together to provide all essential services to the people of their communities. Facilities may be taxed to the utmost, difficulties will be encountered, but nothing must be allowed to interfere with the smooth functioning of these agencies.

Red Cross programs which are of particular interest to hospitals include the training of volunteer nurses' aids, the blood donor service and instruction in home nursing. Information concerning these and other defense activities of the Red Cross may be had from local chapters.

ALBERT McCOWN, M.D.
Director, Medical and Health Service
American Red Cross

From the Office of Civilian Defense

THE war in which we are engaged has, more than any war in the history of the world, brought injury and death to the civilian population. In order that the people of the United States may be protected as far as possible against dangers of enemy action, the Office of Civilian Defense again urges all general hospitals to establish emergency medical field units in accordance with plans outlined in Medical Division Bulletins 1 and 2. These bulletins are available for distribution through state defense councils and regional offices of civilian defense.

Equipment for the field units should be assembled immediately by hospitals from their own reserves and their field units should be drilled weekly. Where necessary, reserve field units also should be organized with medical, nursing and trained volunteer personnel derived from the community to supplement regular field units.

GEORGE BAEHR, M.D.
Chief Medical Officer
Office of Civilian Defense

Ready for Raids

IT ISN'T one person's job to serve as warden in the event of fire from bombing. It's everyone's job and a mighty important job, too. Each individual must know what he has to do and how to do it. This can be accomplished by means of lectures supplemented by practical tests before various groups.

One of the first steps is to organize teams for fire fighting so that the building is covered twenty-four hours a day. Someone in responsibility should assign watches, with members taking turns sleeping in their clothes to be ready for any emergency. The problem is not merely one of putting out the fires but of preventing them. Once they get going it may be too late, their flares serving as targets for others to hit.

Second in importance is the matter of providing the men with fire-fighting equipment. Adequate water supply is essential. Emergency lighting, too, is requisite with sufficient supplies of flashlights and candles to keep the place lighted. Candles with the hurricane type of holder are simpler, for batteries run down.

Close vigilance should be kept over the vital parts of the hospital: the operating rooms, for example, and the power house. If anything is to be camouflaged, it would be well to concentrate upon those points that supply maintenance. Instead of striving for centralization, it is decentralization of every activity that counts, so that if one part of the building should be hit, routine can be maintained as nearly normal as possible. People must be fed, for example, and emergency cooking equipment must be strategically located.

Above all else, the telephone system should be protected. The switchboard operator should be stationed in as protected a spot as possible; if necessary, in a real air raid shelter.

It is well to sound a note of warning, too, about refrigeration, particularly as applied to the storage of biologicals. There should be provision for an emergency supply of ice and the current should be supplied from two sources.

Sometimes incendiaries lodge in the roof, where they remain unsuspected until it's too late. Make sure that among the fire wardens are those who are sufficiently agile to climb here, there and everywhere in quest of the illusive missiles. Everyone should be taught to crawl with his nose on the floor, thus permitting him to breathe in smoke filled rooms. This is quite an accomplishment but one that becomes easier with practice.

For blackouts the problem is to make windows and doors 100 per cent lightproof. First, it is advisable to block out permanently windows not absolutely essential, perhaps in corridors, bathrooms or utility rooms. If this

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By GERALD F. HOUSER
as told to RAYMOND P. SLOAN

does not seem desirable, it may be possible permanently to block out part of the window and to curtain the rest. It is surprising how important are these various details in providing the maximum amount of protection.

For curtaining windows inside panels of plywood have been used in England; also, felt and other materials. The most effective method, perhaps, and the simplest is opaque curtains that fit tightly and snap onto the frame. Many hotels use heavy overcurtains on rollers that may be unfastened during the day. Whatever the arrangement, there is one requisite: it must be 100 per cent lightproof.

As important as the window treatment is the matter of checking to see that it is used. Responsibility for this should be assigned to specific individuals. I can well remember one night when staying in London that the police stopped three different times to check on a stray beam of light that was coming from my room.

While touring the hospital to ascertain what windows may be blocked permanently, it is wise to check on the amount of light being used. A 65 watt bulb may be replaced with one of 15 watts. At the same time, the number of lamps in the room may be reduced. Finally, make sure there is no direct light close to the window. Too much emphasis cannot be laid upon the desirability of reducing to the greatest extent possible those outside areas that must be carefully watched for light leakage.

In securing a complete blackout adequate protection at doorways should be provided. In London it was not unusual to have the entrance door provide access to a space large enough for a bed from which the visitors pass within around a dark curtain.

What is to be done with the patient during an air raid? There seems to be but two answers: (1) when absolutely necessary, evacuate the wards or move the patient away from the windows; (2) should bombs be falling near by, place him under the bed.

There is great danger from broken, flying glass. Wire glass is ideal, but when this is not available, heavy paper or muslin pasted criss-cross on the window will help. In England it is not unusual to find the front entrance or the front windows supplied with brick enclosures or banked with sand bags as a protection against flying glass and light leakage.

For the protection of employes, air raid shelters are recommended, preferably located in the basement or in one of the personnel buildings. There is danger in going into sub-basements or in areas where a break in the water supply might lead to dangerous floods.

Not only should the safety of the hospital worker be carefully considered but he should have some knowledge of first aid. Everyone must know what to do when he has to do it.

From the Procurement Service

WITHIN the Office of Defense Health and Welfare Services the Procurement and Assignment Service has been organized with a view of ensuring a distribution of professional personnel throughout the military, civilian and industrial agencies of the United States with as little dislocation as possible of practitioners from their present locality. In order to carry out this function in the best manner, it is highly essential that every hospital be in a position to give to the procurement and assignment service a frank estimate as to the minimal staff which could adequately fulfill the needs of that institution.

The committee on hospitals of the procurement and assignment service is charged with two important functions: to make a survey of the needs of every hospital in the country in terms of personnel; to determine the assets of the professions in order to provide adequate personnel for the institutions, yet assure that a sufficient number will be spared to meet the needs in the military and industrial capacities.

Contact with the hospitals will be made through the state chairmen of the committee on medical preparedness.

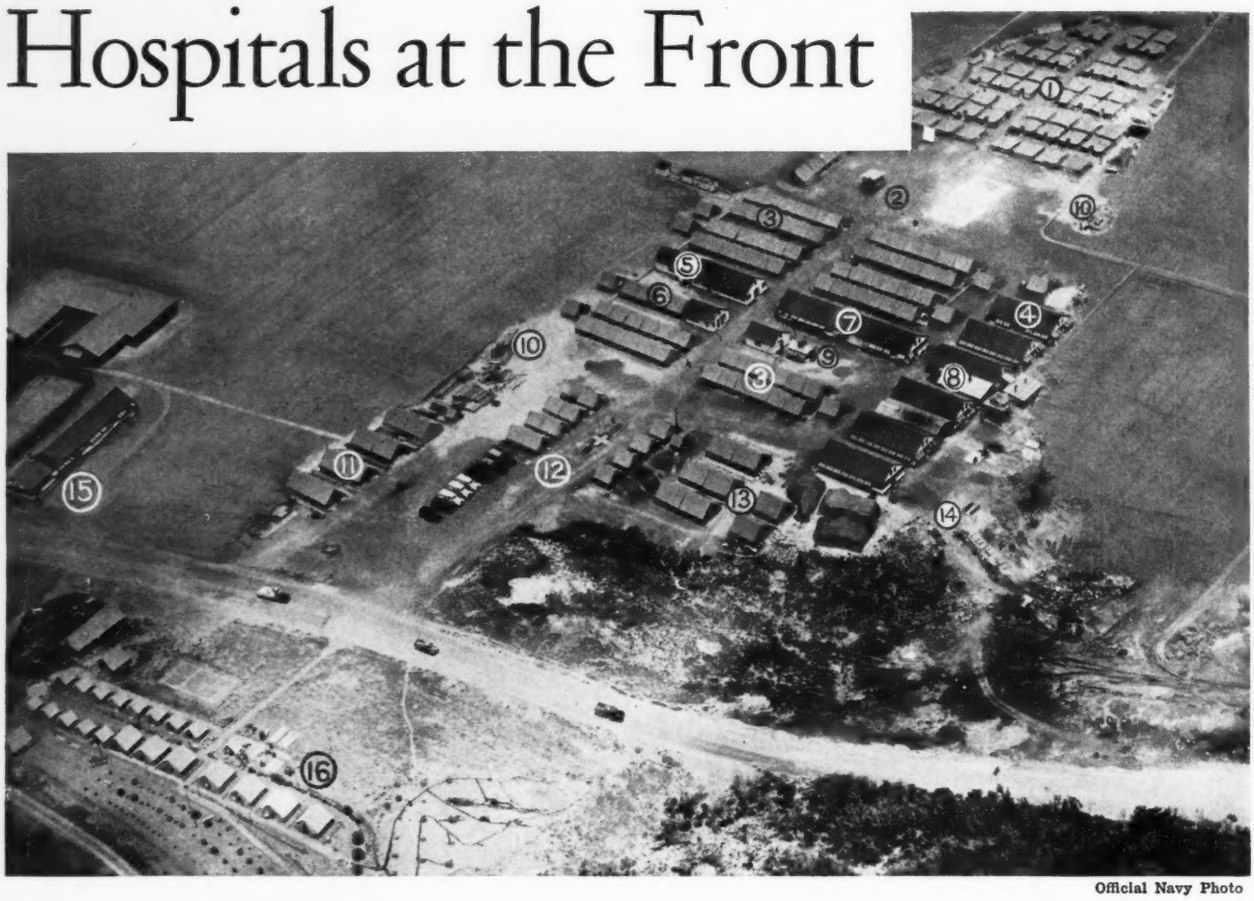
SAM F. SEELEY, M.D.
Executive Officer
Procurement and Assignment Service

From the Pacific Coast

THE hospitals and medical profession, with all auxiliary personnel, are prepared to undertake any additional duties demanded of them by the world conflagration. In any period of emergency, these agencies have never failed to answer every call. Our greatest contribution at the moment must be to continue to improve the nation's health, to carry out our ordinary programs of giving adequate hospital care to the people, to put into practice the many plans that have been developed to meet this war emergency. Methods of dealing with our daily work, with many of the professional personnel called away, and to participate in other important activities incidental to the war effort are now mandatory. There is a willingness and a desire to serve on the part of hospitals throughout the country; that they may serve more effectively, community resources should be mobilized to replace the anticipated personnel losses.

BENJAMIN W. BLACK, M.D.
Director, Alameda County Institutions
Oakland, Calif.

Hospitals at the Front



Official Navy Photo

LUCIUS W. JOHNSON
Captain, Medical Corps, United States Navy

EVERY war in the history of the world has developed certain features that distinguished it from all other wars. The present one, into whose vortex we have been irresistibly drawn, is no exception to this rule. Its principal characteristic is mobility, with huge bodies of troops being moved over great distances at unprecedented speed. As a corollary to this, we must realize the necessity for medical and hospital facilities designed to advance as rapidly as the military forces.[1]

This new demand for greatly increased mobility has imposed many novel problems on the medical department of the United States Navy. To appreciate these, it must be remembered that its responsibilities include medical service not only to the ships and bases of the Navy but also to the Marine Corps.

The Marines are an amphibious outfit, designed to act as a spearhead, which can be advanced over great distances with extreme rapidity by land, sea or air. They are normally accompanied by their field medical organizations but when they are engaged in combat or become stationary at an advanced base they require additional hospital facilities. Other mobile hospitals are needed where the Navy has established bases in such lands as Alaska, Iceland, Newfoundland, the Caribbean area and the islands of the Pacific.

To care for the men in these and other distant places, hospitals are required that can be easily transported by ship, train or truck and quickly set up when the destination is reached. They must be staffed and equipped to care for the casualties of combat, for care of contagious and other diseases, as well as for injuries resulting from the constant hazards of work with explosives and industrial machinery. The laboratories must be complete enough for any public health work that may be necessary to control disease in the area.

To find the equipment suitable for such needs was no simple task. It was finally decided to resort to the trial and error system; therefore, a 500 bed experimental mobile hospital was organized. This was to be used as a guinea pig, on which ideas for personnel, equipment, mobility, transportation and administration could be tried out.

The materials were assembled on a North River pier in New York City and we sailed from there late in October 1940 on a Navy transport. Our staff consisted of 14 medical officers, one dental officer, three pharmacists,[2] a civil engineer and a machinist. The enlisted force of about 200 men included electricians, machinists, carpenters, painters, shipfitters, firemen, cooks, bakers and a large number of men of the hospital corps.

The Navy Department order established our title as U. S. Naval Mobile Base Hospital No. 1. Our tasks, as a part of the mission of the Medical Department of the Navy, were: (1) to erect the hospital; (2)

[1]The ideas and opinions here expressed are solely those of the writer and have no official sanction.

[2]Pharmacists are a special group of men with many years of service in the hospital corps of the Navy; they perform clerical, property, commissary, maintenance and other duties in our naval hospitals.

KEY TO AIR VIEW

1. Enlisted staff quarters.
2. Recreation area; movie shack.
3. Tent wards for 25 patients each; utility tents at ends of wards.
4. Medical ward (prefabricated building).
5. Operating room (left); surgical ward (right).
6. Tent surgical ward; operating room at right.
7. Dental clinic, laboratory, pharmacy and cold storage.
8. Five mess halls (prefabricated buildings); galley and water heaters between buildings; bake ovens at right.
9. X-ray building; generator shack.
10. Two 20 kw. generators.
11. Maintenance area; electrical, machine and carpenter shops.
12. Administrative area.
13. Storage and issue tents; bag room; bulk stores under tarpaulins.
14. Incinerator, hillside type.
15. Laundry.
16. Officers' quarters.
17. Water purification plant (below [16], not shown).

to provide the best possible care of patients; (3) to keep the hospital as mobile as possible; (4) to inform the bureau of medicine and surgery concerning the suitability of our equipment, personnel and administration.

When our transport arrived at the Caribbean base, it was one of those days that one does not easily forget. Our men were flabby and pasty faced from too many weeks of city living. We had left the crisp fall weather of New York and reached the tropics, where the ardent sun kept the temperature well above 100° F. for most of the working day. The hospital area offered not one tree, not even a cactus, to cast a bit of shade and the hot trade winds stirred up a constant cloud of dust.

Ship Unloaded in One Day

There was docking space for one ship and the word was passed that our transport must be completely unloaded that day to make room for another ship that was about to arrive.

Unloading commenced at 6:30 a.m. and all the trucks at the base concentrated on moving our gear to the 8 acre hospital area two miles away. Our hospital corps men, who were largely technicians in various medical specialties, became stevedores to move 135,000 cubic feet of materials weighing 600 tons. They had to work at high speed to keep the dock clear. Out at the hospital site they labored in the heat and dust to unload and sort the 15,000 crates, boxes, bales, cartons and pieces of lumber. A boy scout spirit prevailed and not a complaint was heard. Late in the afternoon, one husky lad straightened his weary back and said: "I didn't know there was so much labor pain in the birth of a hospital."

At the same time, there was other work to be done, for it was necessary that we be self-supporting as quickly as possible. Latrine pits were dug, stoves set up and showers arranged. Our pathologist directed a gang that laid half a mile of 2 inch water pipes and set up the water purification apparatus. Our chief of the medical service was in active charge of erecting several hundred tents. The roentgenologist became a specialist in building latrines, showers and incinerators. Our dentist showed a special ability for locating missing articles and sorting stores.

When darkness came, a large flood light, with power from an electric generator, was furnished at the hospital site. About 9 p.m. its fuel was exhausted; from then on until long after midnight the trucks were unloaded in the darkness. With no light except that from the stars, it was impossible to identify or sort the materials. As a result of this, a large working party was kept busy for days, moving, sorting and segregating the thousands of pieces, searching for missing articles. A member of the staff who kept a voluminous diary had only this entry for that first day: "Worked like hell; got very sunburned; fell into bed at 0300 this morning."

Nature was good to us. Though it was the tag end of the rainy season, there were no showers until the third day; then came a downpour. Fortunately, there were tents for all to sleep in by that time, but we were still cooking in the open. Whatever the intentions of the commissary force, what we had to eat was soup.

Back in Spanish-American war days, when our soldiers were first landed on Cuban soil at Daiquiri and Siboney, the transports hurriedly put to sea as soon as the last man was ashore. It was later discovered that many essential articles, such as guns and field hospitals, were still deep in the holds where they could not be reached. One result of this was that, days later, during the fighting about Santiago there was no protection for the wounded from the sorching sun or the terrific floods of rain that are a part of the tropical climate. Dead and wounded were laid together in a stubble field. Clara Barton and several war correspondents described in burning words the scenes that followed.

Theodore Roosevelt was so impressed by the careless planning, which increased the sufferings of the wounded, that he commented bitterly on it in his writings. Since then, military men have carefully worked out a system of loading ships by which the articles first needed ashore are the last ones to go aboard.

We carefully planned the loading of our ship in this way but it was vitiated by forces not under our control.

Among the first articles to come to hand after we landed were caskets, medicine cabinets, operating tables and other things that would not be needed for weeks. Tools and construction materials were not available in sufficient quantities for many days. This was only one of many plans that we so carefully made only to have them go awry.

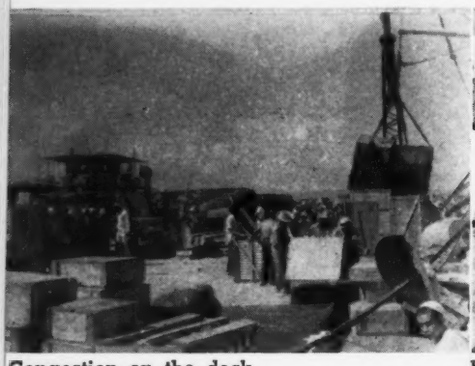
Start From Zero

Everything in a mobile base hospital starts from zero. The site must be surveyed and areas assigned for various activities. Tent floors must be made and laid and tents erected. Prefabricated buildings must have footings accurately placed and leveled. Water, drainage and electrical systems must be planned and installed. Latrines, showers, disposal of liquid and solid wastes, fly and mosquito control, all require careful preparation; while these activities are going on, all hands must be well fed and provided with comfortable sleeping quarters.

On the fourteenth day after our arrival, we sent out a signal that we would be ready the next day to receive patients, except those requiring surgery. Five patients were admitted that day. Eleven days later we were ready to handle any type of patients. Our sick list increased until we levceled off at a daily census of about 240

for many weeks. We had an excellent staff of enthusiastic and well-qualified doctors. In addition to our ward work, we ran a busy consultation and diagnostic service for a large number of Navy ships and a marine force of many thousands.

A malarial survey was conducted in the course of which our laboratory stained and examined more than 3000 blood films. With more than 1000 patients admitted, we had only two deaths; both were from malaria complicated with pneumonia.



Congestion on the dock.

Erecting prefabricated buildings.

Canvas water tanks on towers. Official Navy

Among those present to greet us upon our arrival were countless millions of flies and mosquitoes, also the friendly "gigums" (Eusimilium vorax), minute black insects, swarms of which attempt to invade the ears, eyes, nose or any body orifice that may be exposed. The second day after our arrival, I saw our butcher cutting meat on his block. Man, meat and block were covered by a solid black blanket of flies. Such conditions were speedily corrected and we were fortunate enough to escape serious illness from the early insanitary conditions.

Food has an important relation to morale, especially with an outfit like ours. Being far from home, with many hours of labor every day and few opportunities for liberty, good chow was a great help in keeping the men contented. Fortunately, we had experts who were able to turn out the finest of food, cooking with field ranges and ovens. New and interesting dishes were frequent, delightful surprises.

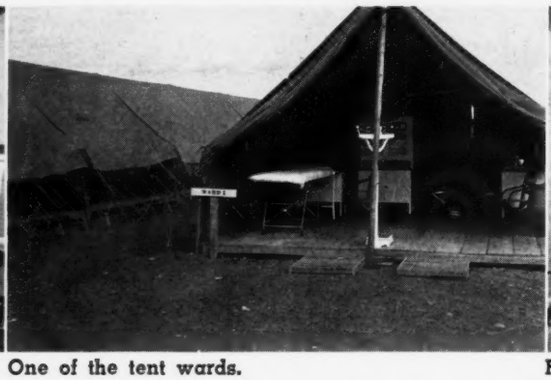
Monotony is always a dangerous element for a body of husky, well-fed young men with time on their hands. As the hard labor of construction tapered off after the first few weeks, our athletic officer organized volley ball, baseball and tennis teams and other activities. So successful was he that the boy scout spirit persisted throughout our stay and there was almost no need for any disciplinary action. Our men soon became bronzed and stalwart workers, able to put in a hard day's labor at construction work, to care for patients or do their usual technical work.

An interesting feature that we had not anticipated was developed during our stay. A large force of Marines was sent to another base several hundred miles away and required hospital facilities during their exercises. We sent with them a mobile hospital of 100 beds and christened it the "mobilette." This unit, with its complement of medical officers and men, established its hospital in a convenient cow pasture and served throughout the maneuvers. An epidemic of a contagious disease on one of the warships filled its beds almost to capacity and proved the value of the small mobile unit.

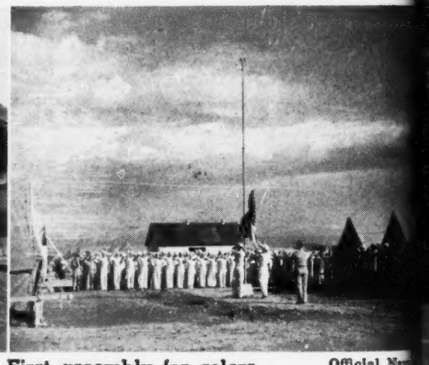
What we learned from this enterprise has been the subject of official reports. The more technical aspects are available for distribution.[3]

There are several areas and prospective areas of combat in which such a mobile hospital with one or more "mobilettes" will be of value. The Pacific Islands come first to mind; then, Alaska, Iceland and Africa. Wherever there are widely separated bases, with long stretches of hostile or uninhabited country between, a mobile hospital, which can be evacuated quickly by hospital ship or by air, will be valuable.

Ranges set between mess halls.



One of the tent wards.



First assembly for colors. Official Navy

U. S. Naval Mobile Base Hospital No. 1 has long since moved on to another base. With the knowledge gained by our trials and errors, Mobile Base Hospital No. 2 has been organized and has already departed across the ocean. Hospitals Nos. 3 and 4 are in process of organization. Our guinea pig has produced a litter, each member of which is vastly better than its predecessors.

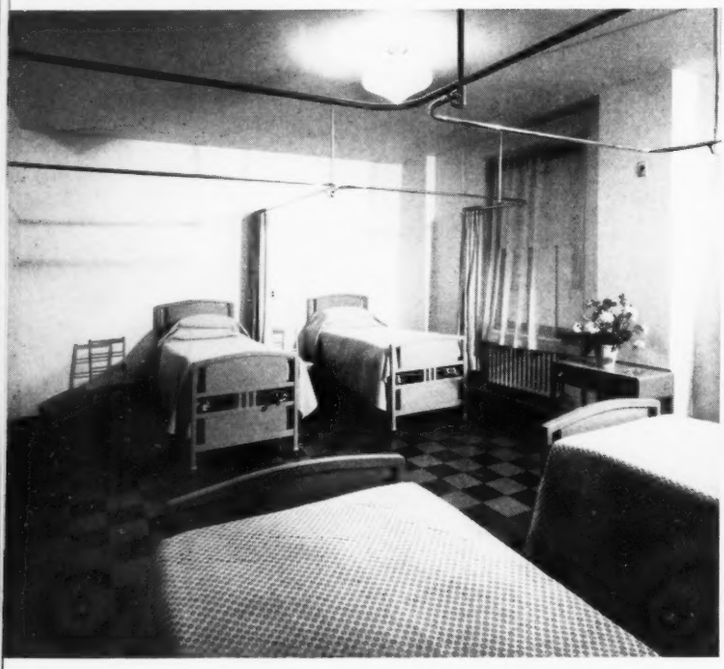
[3] U. S. Naval Medical Bulletin **39**:479 (Oct.) 1941.

A Trip Through the New

WESLEY MEMORIAL HOSPITAL · *Chicago*

De luxe rooms on the upper floors afford a lake front view.

The window filter adapts this low priced room for asthma patien



The four bed wards have steel lockers and individual ward toilets.

The building plan provides a waiting room on each patients' flo

Overhead view of the necropsy room and observation amphitheater.

The solariums are located on the hospital's topmost floo

Double "V" Stands for Wesley

Also, Victory Over City Gloom

PAUL G. BURT
of Thielbar & Fugard, Architects, Chicago

GIVEN a city lot of limited area in a district already having a good proportion of tall buildings and a program calling for more than 500 beds, the new Wesley Memorial Hospital, Chicago, obviously had to go upward. That conclusion having been accepted, it became necessary to avoid as far as possible the creation of the deep narrow canyons for light courts with the accompanying dark rooms and the rows and tiers of windows facing each other that have been characteristic of the high building.

In an effort to provide as much sunlight and direct outlook as possible for each room, many studies were made; the final result is evident in the arrangement of the typical patients' room floor (see page 52). In general, the plan will be seen to consist of two V's the wings of which form 90° angles; the point of each V is set against the central shaft of the building. Each of these side elements is a complete nursing unit, the number of beds in each unit ranging from 38 on the ward floors to 18 in the de luxe private room sections of the hospital.

Plan Advantageous

The V plan has to commend it the fact that nursing control, with full vision of the corridors, can be located in the point where it is as close as possible to the maximum number of patients' beds. Also the service rooms, located across the corridor from the nurses' station, not only are close to the patient but also are convenient to the vertical transportation in the central shaft. Each nursing unit has direct access to the central transportation system and the corridors carry no traffic that does not directly originate in the area and belong to the service of the patients in that area.

The next decision that had to be made was the location of the floors for patients. The building is less than ¼ mile from Lake Michigan, separated from it by the downtown campus of Northwestern University, part of which is open lawn. North, east and south the upper floors have a view of Chicago's lake front; on clear days the dunes at Michigan City, Ind., 50 miles southeast, are visible.

Moreover, the hospital property has city streets on three sides; these are not streets of heavy traffic, it is true, but they are not as quiet or as free from dust as a suburban lawn. It was decided, therefore, that all patients' accommodations would be located on the upper floors above the surgery, laboratories, x-ray department, kitchen, offices, stores and other service departments.

A check of the floor plans (pages 52 and 53) pictures the why of the general scheme. On the upper floors a nursing unit is located on each side of the central shaft — the hospital's "main street"; in that shaft are the elevators for passengers and service, the nursing service dumb-waiters (one for each side tier of patients' units), the food lifts and conveyors, linen and rubbish chutes, ventilating and pipe shafts and stack, and pneumatic tubes.

On the lower floors each of the service units, such as kitchen, central supplies and linen room, has direct access to the vertical transportation and, in point of time, is closer to the points to be served than if it were on the same floor and a similar distance away. This makes practical the maximum centralization of all services with the resulting economies in operation.

A hospital planned in this way is obviously dependent upon the completeness, speed and reliability of its up-and-down transportation—elevators, dumb-waiters and food conveying equipment.

The elevators, it will be noted from the plan, have been grouped, not only to remove from the patients' sections the noise and confusion of traffic but also to obtain the maximum efficiency in use of the equipment. In recognition of the distinct types of service that the elevators must perform, they are divided into two groups, one of the high speed passenger type, running at office building speeds for staff and visitors, and one of the hospital type for personnel, carts, stretchers and interfloor traffic; each group of elevators has its own lobby. The visitor, therefore, does not meet a stretcher as he steps off the elevator.

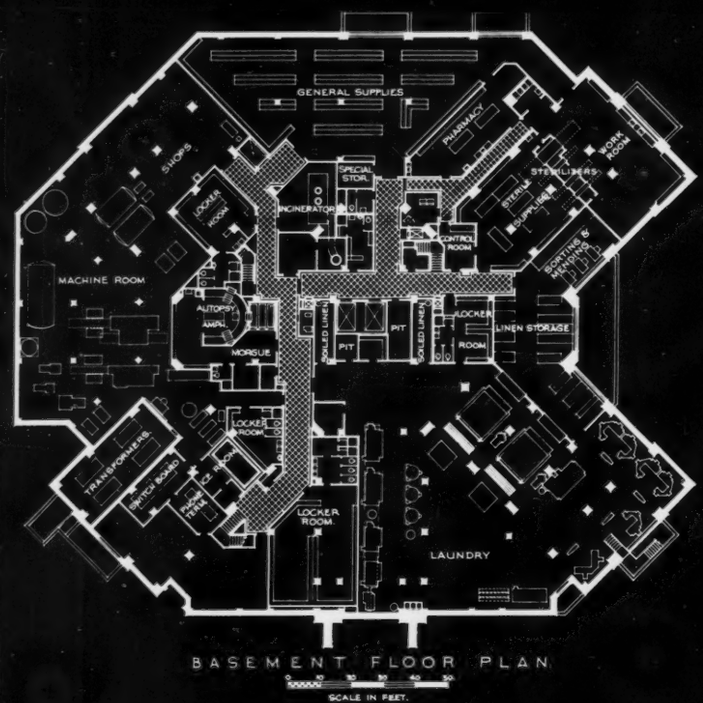
One car, the plan shows, does duty for either type of service; it is available for the peak period of inner hospital travel in the morning and for the afternoon and evening rush of visitors. This car also is available for the night periods when one car can easily provide all the elevator service of any kind that may be required, under the control of either an operator or an automatic push button system of self-operation.

Elevator Service for Supply Units

The central supply group, consisting of sterile supplies, pharmacy, linen and general supply room and storeroom, has direct access to the service or hospital elevators. In addition, as mentioned before, this group has direct high speed dumb-waiter service to all the nursing stations. The main kitchen on the second floor has direct tray conveyors for lower floors and high speed food lifts for the upper floors to the food service rooms on each floor. There are linen chutes to the linen receiving rooms off the laundry and a rubbish chute to a receiving and charging room directly over the incinerator. Also, a pneumatic tube system connects each nursing station with the central supply group, the kitchen, record room and accounting office.

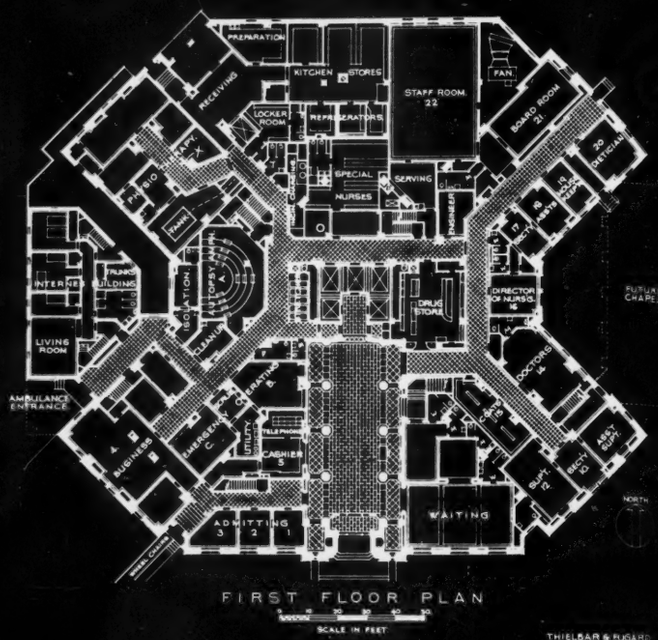
So much for the general scheme and the equipment provided to make Wesley Memorial a practical working hospital. A study of the plans will indicate the way on which com-

(*Continued on page* 54)



BASEMENT FLOOR PLAN

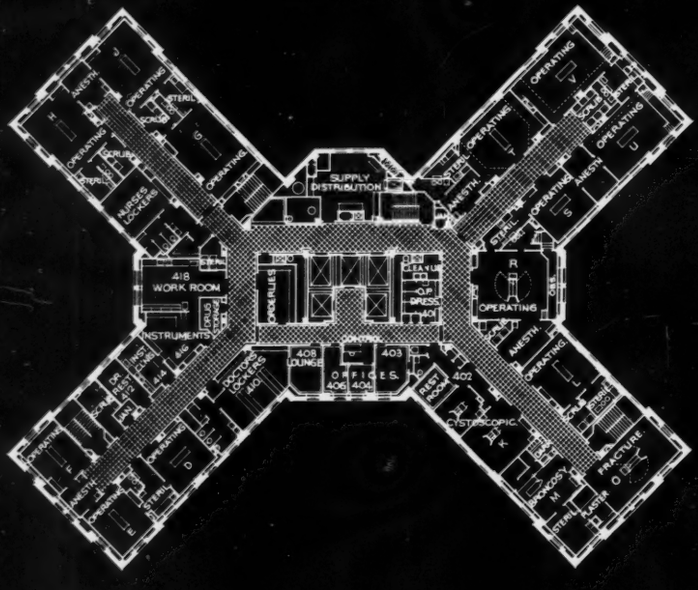
SCALE IN FEET.



FIRST FLOOR PLAN

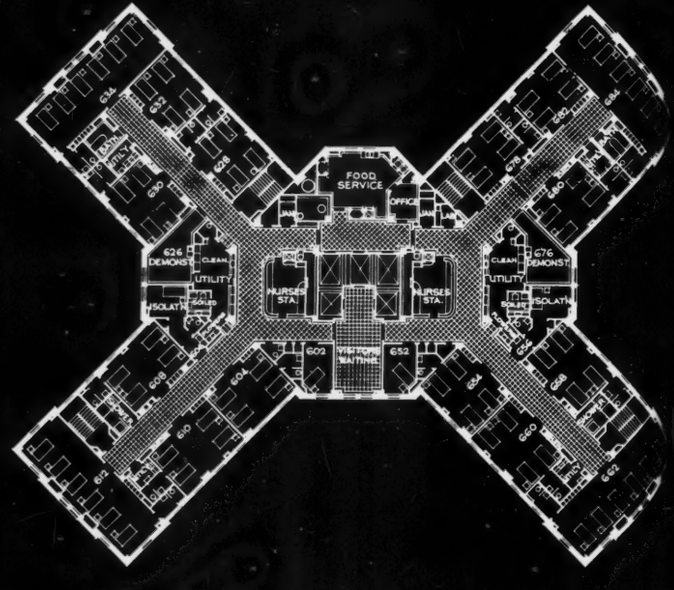
SCALE IN FEET

THIELBAR & FUGARD ARCHITECTS



FOURTH FLOOR PLAN

SCALE IN FEET



SIXTH FLOOR PLAN

SCALE IN FEET

GENERAL DATA: Twenty story unit designed as the center for new group of hospital buildings. Complete hospital of 535 beds with all normal facilities.

CONSTRUCTION: Foundations, wood piles; frame, reenforced concrete; floors, reenforced concrete joists and slabs; ceilings, suspended; exterior walls, Bedford stone with brick backing; interior partitions, clay tile and glazed brick. Windows, steel, generally double hung with some casements in special cases. Doors, cellular flush panel birch and oak with steel bucks and trim; fire doors, Underwriters' Laboratories label hollow metal.

WALLS: Operating, obstetrical, scrub-up, work, bath, utility, sterilizer and service rooms, high ceramic tile dados, plaster above. Kitchen, laundry, storerooms, central supply, pharmacy and all service corridors, glazed brick with glass block in exterior walls. Other walls, plaster.

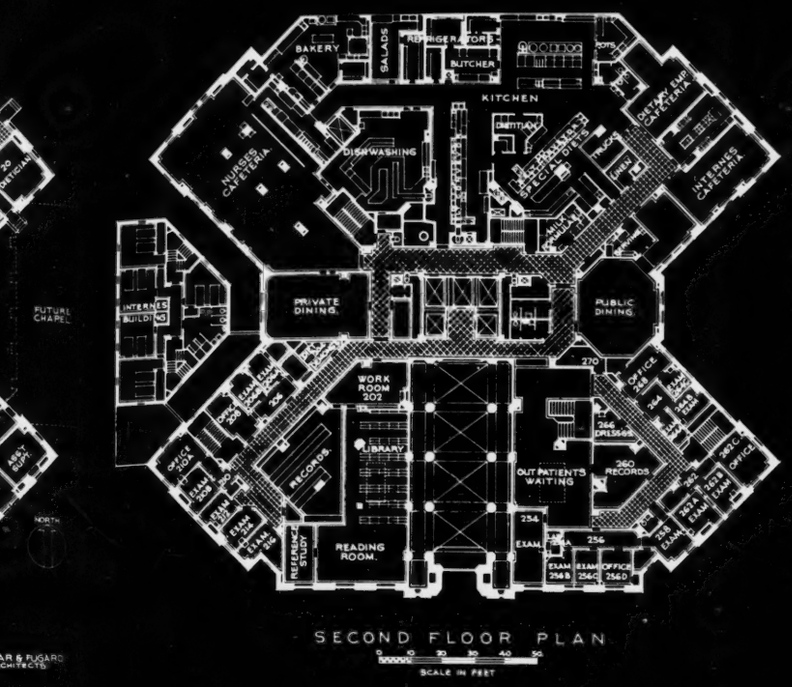
FLOORING: Operating, obstetrical, x-ray, therapy, service and bath rooms and certain corridors, terrazzo; laundry and engine rooms, cement; kitchens, quarry tile; patients' corridors and two floors of bedrooms, rubber tile; other floors, asphalt tile.

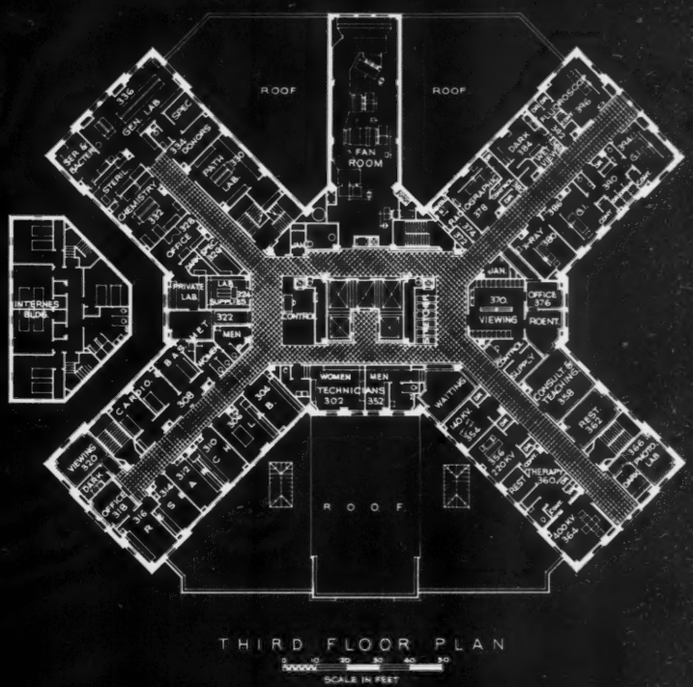
CEILINGS: Kitchen and dishwashing rooms, metal faced acoustic tile. Dining, waiting and board rooms, library and patients' corridors, precast acoustic tile; other ceilings, plaster.

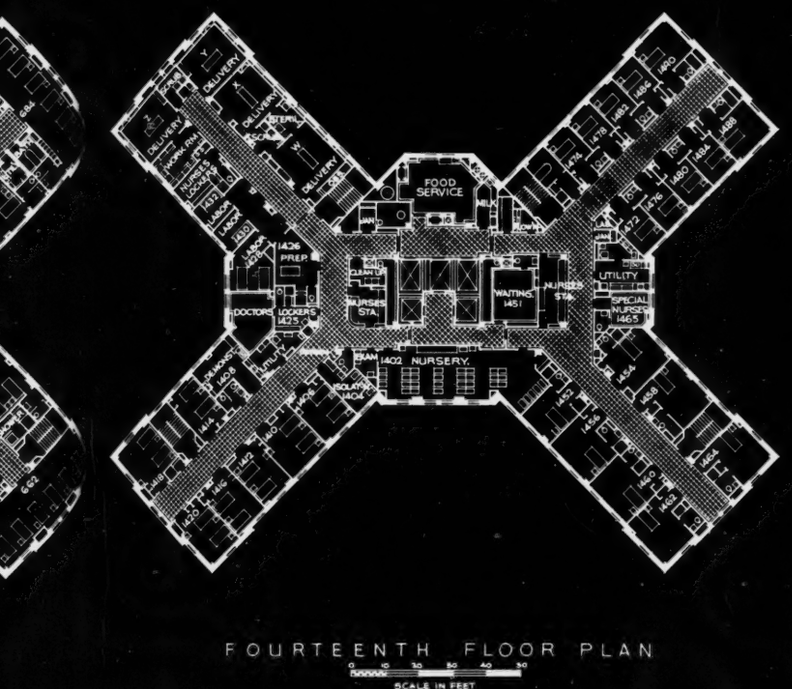
HEATING: High pressure steam to fire pump, refrigeration and house pump turbines and to laundry. Medium pressure to kitchen, hot water generators, sterilizing equipment and ventilation coils. Low pressure steam for direct radiation. Zone control.

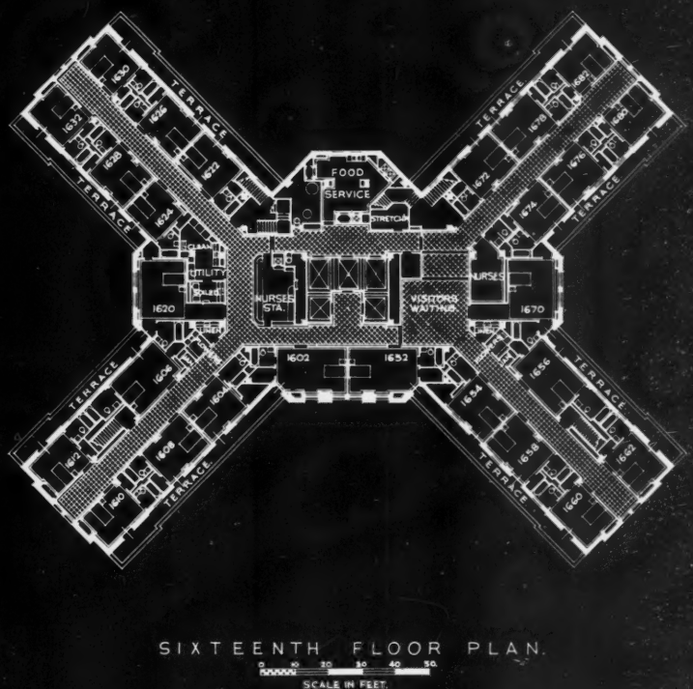
VENTILATION: Mechanical ventilation for toilet, utility, locker rooms, nursing stations, work spaces and laboratories.

AIR CONDITIONING: Air conditioning for main lobby, staff and board rooms, administrator's office, waiting rooms and two floors of patients' rooms. Special ventilation, air conditioning for operating and delivery rooms.









LIGHTING: Patients' rooms, semi-indirect incandescent; corridors, work spaces and laboratories, fluorescent.
REFRIGERATION: Main refrigerators, ice-making plant and morgue, central machinery. Small refrigerators, separate units.
CALL SYSTEMS: Silent nurses' call, all beds to nursing stations; doctors' call; doctors' in-and-out register; audible communicating system with three channel radio with speakers for all private rooms and individual pillow phones for wards.
ELEVATORS AND FOOD CONVEYORS: Five signal control elevators, two at 600 feet per minute for doctors and visitors, three at 500 feet per minute. Power operated doors; one car available for push button automatic operation. One hydraulic lift, basement to second floor, for freight. Three food lifts or dumb-waiters at 300 feet per minute; two central service dumb-waiters to nurses' stations on all floors; one supply dumb-waiter to surgical floor from basement. One up-tray conveyor for serving lower floors, one down-tray conveyor for returning soiled dishes from all floors.
LAUNDRY: Five washers, 4 extractors, 1 tumbler, 2 ironers, 17 presses, 1 soap tank, 1 starch kettle.
KITCHEN: Bakery with electric oven, butcher shop, ice cream room with hardening equipment, salad room, each with own refrigerators; food assembly line for standard diets and second assembly line for special diets; tray conveyor and dumb-waiter service; dishwashing room.
X-RAY DEPARTMENT: Five diagnostic x-ray tables, dental x-ray, 400, 220 and 140 kv. therapy machines, two urology diagnostic tables, mobile machine and new type of biplane fluoroscopic unit for bronchoscopic work.
BUILDING COSTS: Total building cost, $2,753,432; cost per cubic foot, 64.5 cents; total equipment costs (laundry, kitchen, sterilizer and x-ray), $225,758.
Heating, ventilating and air conditioning, 5.4 cents per cubic foot; plumbing, 6.67 cents; wiring, 3.87 cents; elevators and dumb-waiters, 5.33 cents.

mon minor traffic problems have been related to the main lines of up-down service. For instance, on the surgical floor with its 12 operating rooms, pedestrian arrivals on the passenger elevators can be shunted to an out-patients' dressing room, to the doctors' lounge and lockers or to the urological diagnostic unit without getting into the surgical corridor.

Urology, bronchoscopy and plaster work of this fourth floor have been concentrated in one wing of the surgery to simplify the work of the x-ray technicians coming from the floor immediately below. X-ray and pathology laboratories, as well as the basal metabolism and cardiography departments, are on the third floor, not too far from the street for the out-patient and ten seconds by elevator from the floors containing patients' rooms.

The finishes of all types of accommodation in patients' quarters are plain and are uniform; such differences as there are occur in the furnishings. Finishes throughout have been selected with ease of maintenance as a major requisite. Inside window sills, for instance, are of stainless steel to eliminate the continuous painting or refinishing required for a wood or an iron sill. Metal door frame bottoms are of precast terrazzo or stainless steel and all room bases or mop boards are made of the asphalt tile or the rubber material of the adjoining floor. Stair hand rails, always a problem because of the handling they get, are extruded aluminum. All service portions in basement and in the kitchens have walls of glazed brick and all baths, toilet rooms and operating rooms have ceramic tile wainscots.

Doors to patients' rooms and wards have been made wide enough to permit moving a bed through them. This posed a problem because a 4 foot door is extremely difficult to hang properly and is heavy to move. This problem was solved successfully by the use of a light veneered wood door built up on a cellular instead of a solid core. This is a less expensive and simpler method than the use of the two leaved door.

A city hospital of this type, accommodating acute cases almost entirely, has little need for day room space on the individual patients' floors. Because of the hospital's location near the lake, the higher floors have a splendid outlook; therefore, the seventeenth and eighteenth floors have been set aside for patient lounge space and solariums. On the seventeenth floor the roofs of the four wings are available; they are floored with asphalt plank and with plumbing vent pipe systematically covered up and arranged to form a frame for a pergola or for a canvas marquee. It is possible to move a bed from a room or ward out onto one of these roofs.

The exterior treatment of the building has been developed in keeping with the architecture of the adjoining university campus, Bedford stone being used throughout. Decorative motives are adapted from Gothic detail. However, the architects have made no sacrifice of light and air, have built up no useless masses of masonry in order to achieve archeological correctness. They have tried to create a building based primarily on the patient and the intricate stream of services and materials that concentrate on him.

Wesley's Mechanical Systems

J. G. MENCH

TO SAVE space in the new building and to maintain cleaner operation throughout, it was decided to purchase the steam for Wesley Memorial Hospital. Although this arrangement is no more expensive than operating a central heating plant in the hospital, provisions have been made for installation of stack and boilers should this seem advisable in the future.

By the present agreement with Northwestern University, steam is supplied through a line placed in a tunnel and trench which runs across the campus and under the street separating the two institutions. Incoming steam is received at header pressure of 150 pounds and is reduced to 100 pounds for the hospital laundry. The initial 150 pound pressure is used for fire pumps, refrigeration and house pump turbines. The fire pump turbine, when called upon to operate, discharges into a free atmospheric exhaust line and the refrigeration and house pump turbines exhaust into an intermediate pressure line at 50 pounds. A set of pressure reducing valves furnishes makeup steam from the incoming high pressure line to the intermediate pressure header when exhaust from turbines is insufficient.

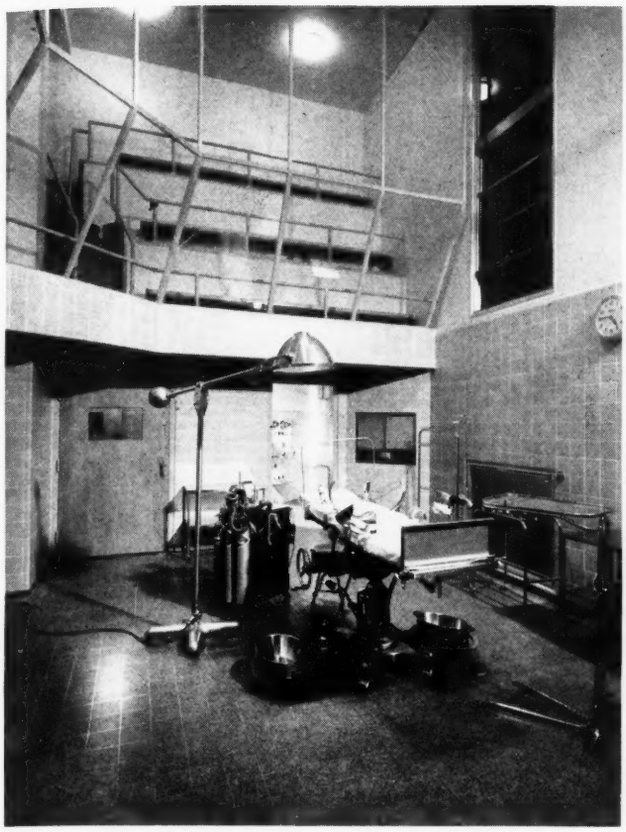
The heating system is divided into four zones each controlled from an inside-outside thermostat, thus compensating for sun effect, wind direction and outside temperature. Temperature in all operating and delivery rooms is controlled to maintain 80° F. and a relative humidity of 60 per cent.

A conventional system of ventilation is provided for all toilets, utility rooms, lockers, nursing stations and work spaces with acid resistant ducts for exhaust from chemical hoods of the laboratories. There are 12 ventilation systems in the hospital handling 260,000 cubic feet, or 10 tons, of air per minute.

Three channels of radio are wired throughout the building with station selector switch and volume control at each bed location. At each ward station a jack is provided for plugging in a pillow phone and at each private room station a small speaker is furnished.

The nurses' call system for wards is a silent light annunciator type operated by means of a cord and push button. The call system for private rooms consists of a typical bedside station with cord and calling button and provides two-way conversation. When the nurse at the desk calls a patient, radio reception is cut off automatically until the nurse closes her key. The nurse can thus determine the condition of all patients at any time without leaving her desk since the calling system is given precedence at all times.

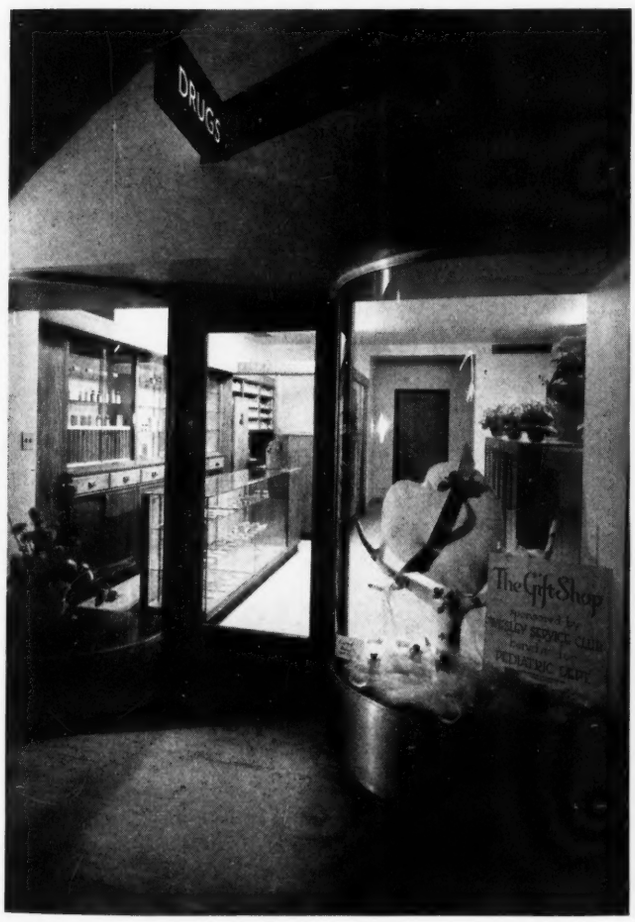
In the de luxe rooms a "privacy feature" enables the patient to throw the selector to "private," eliminating the pickup of sounds from the room. The speaker remains operative, however, and announcements from the nurse to the patient may be heard at all times.



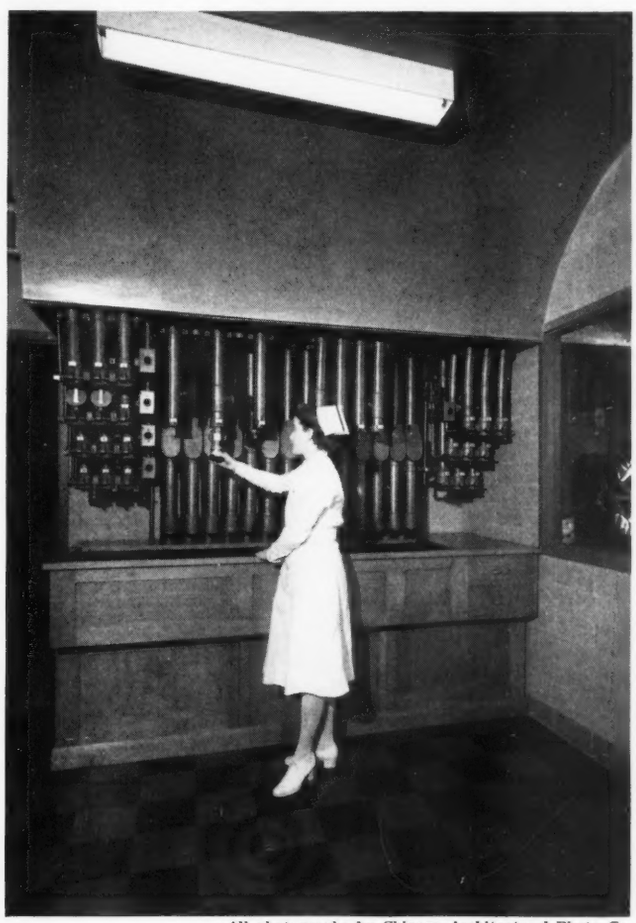
One of the twelve operating rooms on the surgical floor, all of which are especially ventilated and air conditioned.

At the far end of Wesley's spacious Gothic lobby is hung John de Posen's gold leaf mural, "The Master Healer."

Two circular display windows provide an inviting view of the gift shop, which is situated off the main lobby.



The pneumatic tube system connects the nursing units with central supply, kitchen, record room and office.



All photographs by Chicago Architectural Photo Co.

Inside view of nurses' station showing the communication system.

Location of the nursing unit permits complete control on floo

The general laboratory is equipped with fluorescent lighting.

Surgical supply has direct access to the vertical transit syste

A battery of washers and extractors handles the laundry load.

This emergency battery provides 3½ hours of utility electric

SOUND PRACTICE	FALSE ECONOMY
☒ Conserve materials	☐ Lower standards of service
☒ Raise rates	☐ Lay off help or reduce wages
☒ Dispense with luxury services	☐ Buy cheaper products

How to Meet Rising Prices

KEITH O. TAYLOR and HARRY GEIS

Administrative Intern and Purchasing Agent, Respectively
Peralta Hospital, Oakland, Calif.

PRICES today have attained a level nearly equal to those of fabulous 1929. Indeed, building materials, fuels, ferrous metals, coarse textiles and vegetable oils are all at a higher index figure than they were at that time. While some of this rise has been gradual, the real upswing has occurred since January 1940. Many items, moreover, are obtainable only with priority orders; some are simply unobtainable.

Advances of 20 per cent and even of 50 per cent are common and Dr. Heinz Luedicke, commodity editor of the *New York Journal of Commerce,* stated on October 1: "It is not unlikely that we may witness an additional advance in price averages of 15 per cent to 20 per cent during the next six or eight months. That would bring the whole war advance to about 50 per cent." To ascertain the effect of advancing prices, a study of a considerable number of hospital items selected at random was undertaken at Peralta Hospital, Oakland, Calif. Prices for each commodity as of October 1940 and October 1941 were compared.

The first group studied consisted of medical and surgical supplies. In this one year, adhesive tape, 5 by 12 uncut, had advanced 46 per cent and another advance is in the offing. Canvas advanced 38 per cent; cellucotton, 35 per cent; composite padding, 32 per cent; gauze sponges, 30 per cent; bandage scissors, 28 per cent; gauze, 43 per cent. All rubber goods were up about 10 per cent with further price increases expected, especially now that war with Japan has created a real rubber shortage.

The unweighted arithmetic average for the entire list was 31 per cent and, while not too accurate statistically, undoubtedly presents a fair picture of the general price advance.

Economy in use is the important factor in this group, not economy through curtailment of supplies but through the correct use of the proper article in the amount necessary to accomplish its purpose and also through the best possible care of metal and rubber goods.

Housekeeping supplies showed an advance of 40 per cent over the previous year, while laundry supplies took a 64 per cent jump. Mattress pads and laundry nets soared 90 per cent and 92 per cent, respectively. Sheets and pillow cases advanced 61 per cent and 58 per cent, respectively, and toweling was up 53 per cent. Here again limitations were applied, with the purchase of paper towels fixed at the amount purchased the previous year; a 25 pound limit was set on the purchase of mangle wax. Conservation and proper usage to obtain maximum wear of all articles appear the logical answer. In some cases, cheaper items might be substituted but unless they provide equivalent value such substitutions are false economy.

The simple arithmetic average of the advances for dietary items of 30 per cent was far from reliable because of wide variations in price ranges and amounts used and because the average did not include meats, fresh fruits and vegetables. It does indicate, however, that the dietary department is sharing in the general price advance. Butter, meat and poultry product prices have taken very large advances, though varying somewhat according to locality.

In solving increased costs in the dietary department, it is not uncommon to resort to inferior goods. Nothing, unless it is poor nursing, can increase patients' complaints and eventually lead to reduced patronage like poor food, poorly prepared. It is essential, therefore, to maintain quality and to seek economy through elimination of waste; competitive purchasing, particularly in green goods and meats, and advantageous use of seasonal price shifts. Comparative prices of fresh, canned and frozen foods need to be carefully considered and several sources of supply maintained in order to enjoy the advantage of competitive offerings.

Taxes are adding to the cost of many pharmaceuticals. The new federal tax of $1.90 a gallon on alcohol is only one of many. This statement is made in the *Northern California Drug News* for October: "Prices of preparations containing alcohol are naturally going to advance. While the advance on some may be small, the aggregate will amount to a tidy little sum."

More important than price advances are limitations on supply, as is the case with many metallic salts.

Zinc oxide is much more difficult to obtain and prices on the smaller amounts purchasable have advanced. Atropine from the Baltic region is obtainable only in limited amounts and formalin is restricted to 1 gallon purchases. Additional costs in this department can largely be passed on, but economy is necessary for those items that will be difficult or impossible to replace.

Glassware for the laboratory has advanced about 10 per cent and further advances may be expected. Major pieces of equipment, such as centrifuges, have advanced tremendously in price and often require priority orders for their purchase. Cover slides illustrate the difficulty encountered in this department in obtaining supplies previously purchased abroad. Until 1939, these slides were obtained from Germany or England and in January 1939 were $1.15 an ounce. By June 1940 they had advanced to $2.35 and in February 1941 had reached $3.30, an advance of approximately 187 per cent. Production was begun in the United States with the result that they can now be had for $3.15 an ounce, bringing the price advance over 1939 down to less than 175 per cent.

Owing to shortages in metals, many engineering supplies are not available or are available only at exorbitant prices. Conservation and prompt attention to minor repairs constitute the best means of meeting this rise.

Higher Rates Partial Cure

How can hospitals meet these increases? In the first place, hospitals may raise their rates. Such advances have already been made in some places and will undoubtedly continue. But it is quite certain that a 50 per cent rise in rates would meet with a storm of disapproval and would, in fact, deny the use of hospital facilities to many whose wages will not keep pace with the increased living costs.

The remaining margin between income and costs must be met in some other manner. One means of achieving this is to accept a lowered standard of care. However, such a policy should be foreign to hospital thought for if hospitals allow themselves to be dragged backward, patronage will gradually fall off and a good reputation lost will be hard to regain. Moreover, proponents of state medicine will be furnished with fresh ammunition.

Another answer along this same line, one which almost invariably results in poorer service, is a decrease in personnel. It is surprising how small a staff can be retained and still have a hospital run, but this depends on where you wish it to run. While it is difficult to decide on the optimum number necessary to carry out the work of any department, it is doubtful if many hospitals are overstaffed; careful observation is likely to lead to the opposite conclusion. Likewise, cheap workers to replace higher priced help are generally like cheap goods—shoddy.

Indeed, when actual retrenchment is forced upon a hospital, the most dispensable items are the frills and luxuries. When the hospital reaches the point at which inadequate care is the only alternative to no care, the latter is probably preferable. The poorly operated hospital is likely to become the dangerous hospital.

Economy Is True Solution

There remains one other answer. This has seldom been attempted in hospitals or for that matter in a major part of industry—economy. To most of us economy means pinching and scraping, using substitutes and doing without things we feel necessary. Actually, economy is the correct use of the right tool in the amount necessary to accomplish the purpose. It is not economy to leave a wound without a dressing, but it is definite lack of economy to use an extra foot of bandage and 6 extra inches of adhesive through inexpertness or lack of standard procedures. It is not economy to use poor food but it is evidence of lack of economy if considerable portions of good food are wasted.

It is not economy to buy cheap draperies and linens that will wear out in a third of the time of material costing double. But it is economy to supervise the washing and care of such materials so that they attain their maximum life. Few would claim that the discontinuance of telephones is an economy, but the discontinuance of unnecessary calls is distinctly so.

Even small items, such as unnecessary use of electric lights and failure to shut off water faucets tightly, are important items today. Not only is there the cost of electricity but also the shortened life of bulbs, which now draw a 10 per cent government tax in addition to the 10 per cent or more increase in the cost of the bulbs. The loss of water may seem like little or nothing but hot water requires the use of fuel; even more important, it takes but a short time for leaking water to ruin valves.

The drive for scrap aluminum made everyone conscious of that shortage; the same is true of many other items. Copper and brass scrap have recently been put under full priority control, and carded yarns are subject to a price ceiling. Textiles have taken tremendous leaps. Waste of these materials leads to greater costs than are necessary and here the proper use of the correct tool in the amount necessary to a proper job may be emphasized.

Casting about for means to economize, one hospital found that one of its doctors had been using cellophane over clean wounds for some time, not for monetary economy but for improved care. The cellophane allowed palpation of the wound and ease of examination without the necessity of constantly changing the covering bandage. Applied, generally, it resulted in a considerable saving as well as in better satisfaction.

Save Through Efficiency

Department heads must be on the lookout for improved methods that will conserve materials and at the same time do as good or a better job. Every employe must do his part in carrying out standardized procedures and in avoiding waste. Proper economy will not only reduce hospital costs but will also aid the country in conservation of supplies necessary to total defense.

After the emergency in a time of falling costs it is only right that much of the savings effected by the cooperation of employes should be passed on to them.

On the whole, hospitals have contributed to lack of economy through the false economy of poor wages and working conditions. Proper economy, therefore, will look forward not only to economy of materials but also to economy of personnel through better wage scales and wise personnel policies.

Physical Therapy Technicians

ALDEN B. MILLS

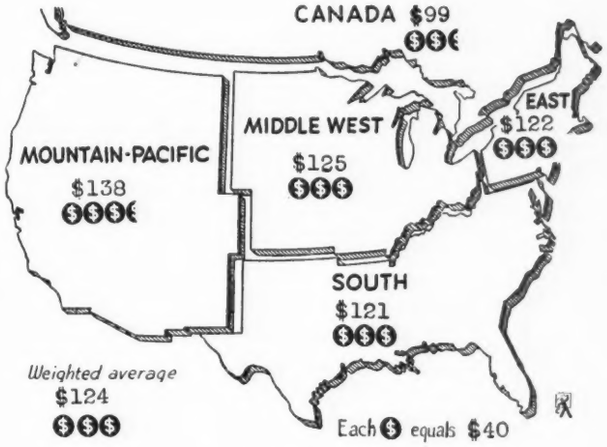
THE average salary of physical therapy technicians, including the fair cash value of maintenance, is $124 per month, according to reports sent in for The MODERN HOSPITAL's salary survey. A total of 297 hospitals reported salary for such technicians from the 1244 hospitals sending in data for tabulation.

Three hospitals, one in the East, one in the Middle West and one in the South, reported salaries of physical therapy technicians of from $50 to $59. At the other extreme were one hospital in the East and two in the Mountain and Pacific states that reported salaries of from $190 to $199. There were three hospitals in the Middle West and one in the Mountain and Pacific states that reported salaries of from $180 to $189 and a total of nine hospitals in various parts of the country that pay from $170 to $179 per month.

No hospital of less than 25 beds reported a salary for physical therapy technicians. There were 17 hospitals of from 25 to 49 beds reporting; these paid an average of $115. The average for all of the other groups of hospitals varied only between $123 and $126 per month, indicating a much more standardized condition regarding the salaries of physical therapy technicians than prevails for other types of hospital workers. Apparently, if these figures are indicative, there is just about as much responsibility required to run a physical therapy department in a hospital of 50 beds as in a hospital of 500 beds. Apparently, also, the hospitals of 50 beds that have such departments value them at just about the same figure as do the large hospitals.

Except in the hospitals of from 25 to 49 beds, the average salaries paid in the Mountain and Pacific states are from $2 to $22 higher than the salaries paid in any other region of the country. The highest average for any of the categories of hospitals is paid in the Mountain and Pacific hospitals of from 100 to 199 beds, namely, $146.

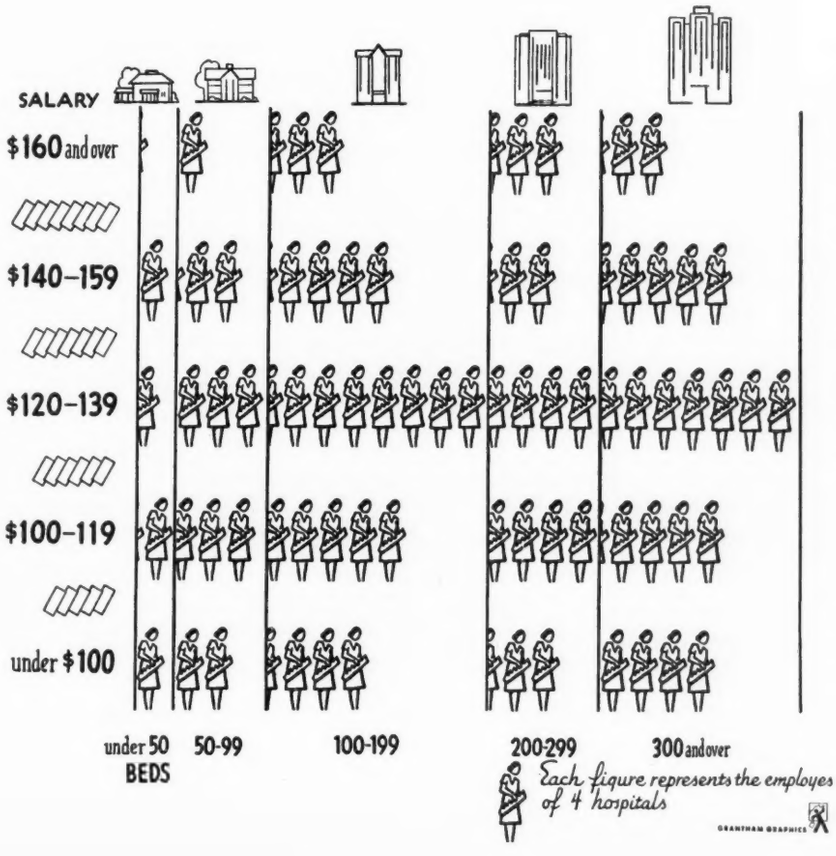
The overall average salary paid physical therapy technicians represents a more standardized salary condition than exists among most of the other employe groups covered by this nation-wide survey.



Average Monthly Salaries of Physical Therapy Technicians

	Bed Capacities of Hospitals						
	25-49	*50-99*	*100-199*	*200-299*	*300-499*	*500 and Over*	*Total*
East	$140[2]	$112	$123	$117	$124	$127	$122
Middle West	115	116	124	130	143	127	125
South	124	120	117	123	122	124[2]	121
Mountain-Pacific	103	134	146	144	145	142	138
Canada	95[2]	106[1]	103	....	90	105	99
Total	$115	$123	$125	$125	$125	$126	$124

[1] One report received. [2] Two reports received.



75 Points to Consider in Training

E. M. BLUESTONE, M.D.

Director, Montefiore Hospital, New York City

THE STUDENT

1. The qualifications of the student for eventual appointment to an independent executive position: (a) age (preferably postresident age); (b) education (preferably medical); (c) attractiveness of personality; (d) good health; (e) good character; (f) interest and willingness to learn; (g) imagination; (h) leadership and executive ability, and (i) motives for applying.

2. Unless the qualifications of an outsider are decidedly superior, preference should be given to a graduating member of the house staff.

3. The importance of an appropriate title (to command respect and get things done).

4. The significance of membership in the "Office of the Director"; definitions of authority (power) and responsibility.

5. The student as intermediate officer between the teacher on the one hand and the patient, personnel and public on the other.

6. The social work point of view.

7. The psychology of the "soaking" process by which the student is steeped in the atmosphere of the hospital.

8. The initial period of observation in the teacher's office.

9. Detailed surveys of departments by the student in rotation, in cooperation with department heads.

10. Participation of the student in the preparation of reports of various kinds.

11. Secretarial duties at committee meetings; preparation of minutes.

12. Ways by which the student may keep himself informed about every aspect of hospital service; knowing patients and their families by name.

13. The student as guide for important visitors to the hospital: (a) importance of such contacts and (b) coincidental supervision.

14. The place of the salesman in the education of the student.

15. The privilege of occasional attendance at lay board and medical board meetings (observation of the flow of authority in the hospital).

16. Cooperation with the house staff in securing permission for postmortem examination (the ideal test of the ability of the student to meet the public convincingly).

17. The work of abstracting important articles in the administrative specialties as a lesson in hospital management.

18. The value of membership without vote in the junior medical board.

19. Membership in hospital discussion groups.

20. Membership in professional organizations.

21. Attendance at professional meetings and exhibits of all kinds, accompanied by the teacher in the early stages, and independent attendance with subsequent report to the teacher in the later stages of the training course.

22. The value of maintaining contact with the medical profession generally and the profession of social service; methods of obtaining this objective.

23. Close contact with clinicians on the visiting staff to clinch the medical point of view.

24. The value of visits, by prearrangement, to other hospitals selected by the teacher; the value of inspection tours with other teachers in other hospitals.

25. The review of selected questions in hospital administration from previous examination papers.

26. Acting duties in the absence of the teacher, under the supervision of the governing board.

27. The privilege of experimentation; its advantages and its limitations.

28. The place of the notebook in the education of the administrator.

29. Minimum and maximum periods of apprenticeship; the encouragement of promotion to independent work at a favorable time.

THE TEACHER

30. Avoidance of exploitation; periodic inquiries to make sure that the student is comfortable.

31. The relative values of active and passive pedagogy, of teaching by precept as well as by example.

32. The personal touch in the teacher-student relationship; the approachability of the teacher.

33. Importance of close contact to avoid excessive responsibility for the student and undue embarrassment for the uninformed teacher.

34. Assignment of reading matter (the principles of hospital administration); selected texts in books and journals.

35. The "administrative clinic" in the executive office and in the field; selected cases for thorough discussion (the practice of hospital administration).

36. Importance of joint periodic administrative rounds in every corner of the hospital.

37. Encouragement of literary talent.

Notes from an address on "The Training of the Future Hospital Administrator by the Apprenticeship Method" before the Hospital Standardization Conference of the American College of Surgeons, Nov. 4, 1941, Boston.

Apprentices in Administration

Memorandum for Teachers and Students

38. The encouragement of public speaking; opportunities inside and outside the hospital.

39. Analysis of the morning mail in the presence of the student; subsequent sharing of the mail on a selective basis.

40. Advantages of sharing the confidence of outgoing mail with the student: (a) to keep him informed, (b) to teach him method in correspondence and (c) to enable him to take over on short notice.

41. The gradual assignment of routine correspondence under supervision.

42. Detailed consideration of pending problems, their analysis and solution.

43. The gradual assignment of special tasks within the hospital, such as: (a) the discipline of the house staff, (b) discussion with patients who want to leave against medical advice, (c) attention to complaints of all kinds and (d) close contact with morale-building functions.

44. Assignments in the organization of special events and the preparation of programs of various kinds, social and medical, within the hospital.

45. Gradual transfer of duties of varying importance with age and experience.

46. Importance of stimulating communal, extramural and general interest.

47. Ultimate assignment of representation at various gatherings.

48. The encouragement of cultural contacts outside of the specialized field of hospital administration.

49. At intervals, summaries of strong points and weak points for private discussion between teacher and student, to bring educational objective to fulfillment—the development of the personality of the student—and to help him obtain the maximum benefit from his native qualifications.

50. Importance of giving full credit to the apprentice for original ideas.

THE LESSONS

51. Principles of work organization: (a) the desk; (b) the files; (c) secretarial service; (d) the appointment system; (e) frequency of administrative rounds, and (f) the relative value of paper work and work in the field.

52. Methods of evaluating quality in hospitals.

53. Emergency character of hospital service; importance of staying close to the job.

54. The principles and practices of preventive administrative medicine.

55. Principles underlying approvals and disapprovals on varying and unprecedented occasions; the significance of the executive's signature.

56. How to give and take orders successfully.

57. Importance of logical (cool, balanced, unexcited) thinking, particularly in the presence of others and in emergencies.

58. The value of the written memorandum (don't trust to memory).

59. Principles of negotiation, diplomacy and statesmanship generally.

60. Importance of absolute impartiality in every phase of hospital service.

61. The statistical point of view in hospital administration; the importance of the filing cabinet.

62. Significance of peak loads in hospital work.

63. Significance of precedent and tradition in hospital service.

64. Need for differentiating between the important and the unimportant in administrative life; principles of administrative values; judgment in choosing between two or more possibilities.

65. The comparative value of the spoken and the written word and the place of the unspoken and the unwritten word in hospital administration.

66. Significance of "distance" in executive work; social contacts with the staff.

67. Principles of selection of personnel for specialized work in hospitals.

68. Principles underlying the preparation, promulgation, supervision and enforcement of the budget; the place of the deficit in hospital life.

69. Importance of an efficient pay roll routine.

70. Training in the preparation of administrative forms; notices for bulletin boards; general and special orders.

71. Development of plans of all kinds; assignments in collecting data; ways of seeking advice; execution of these plans.

72. Legal aspects of hospital administration; hospital legislation.

73. Methods of obtaining new and improved markets for money, merchandise, personnel and ideas.

74. Bases for establishing policies, rules and regulations.

75. Methods of keeping the governing authorities informed.

"Passed by the Censor"

From S. R. SPELLER, LL.B. (Lond.)
Editor, The Hospital

London, England, Nov. 5, 1941

MORE than once in my monthly letters I have referred to schemes for the coordination of all hospital services on a regional basis. The matter has now been taken a stage further by the following announcement in Parliament on October 9 by the Minister of Health:

"It is the objective of the government as soon as may be after the war to ensure that, by means of a comprehensive hospital service, appropriate treatment shall be readily available to every person in need of it. It is accordingly proposed to lay on the major local authorities the duty of securing, in close cooperation with the voluntary agencies engaged in the same field, the provision of such a service by placing on a more regular footing the partnership between the local authorities and voluntary hospitals on which the present hospital services depend.

"The government recognizes that, to achieve the best results and to avoid a wasteful multiplication of accommodation and equipment, it will be necessary to design such a service by reference to areas substantially larger than those of individual local authorities. It will be the aim of the government, also, to avoid overlapping and uneconomical expenditure by securing the provision of the more highly specialized services at teaching hospitals and other centers selected to serve these wider areas and by arranging for a proper division of function among hospitals in these areas."

The minister also stated that patients would be expected to make a reasonable payment toward the cost of their service through contributory schemes or otherwise. If local governments find their financial burden increased, a contribution from the exchequer will be provided. Increased educational grants to teaching hospitals are also contemplated.

In answer to supplementary questions, the minister reiterated that proper use would be made of the voluntary hospitals and said that a further statement on the future of the nursing profession would follow.

Almost as important as the minister's statement is the announcement of agreement in principle between the Nuffield Provincial Hospitals Trust and the County Councils Association for cooperation of the local authorities controlling hospitals in an agreed scheme for coordination on a regional basis. This is an important step forward because the local authorities, essential parties in any agreed scheme, up to the present had tended to hold aloof fearing that to take part in the formation of regional and divisional hospitals councils would commit them to substantial financial support of the voluntary hospitals in their respective areas without any corresponding right to representation on the boards of such institutions. They had also feared the implications of the word "regionalization."

The word "region" has been used during the war to denote areas larger than the administrative counties throughout which, for purposes of defense, the government had established a certain unity of control under civil defense commissioners and other officers. The county and municipal authorities could see their powers being undermined and were not eager, therefore, to commit themselves willingly to further regionalization or to what might be a perpetuation of the present Emergency Hospital Service. Fortunately, however, the voluntary hospitals, too, had their doubts about the present service, regarding it as a possible prelude to a state hospital service in which they would have no independent place.

Consequently, the following agreed statement was reached by a joint representative committee:

"Name. The trustees agreed that, in view of the technical meaning attached to the term 'regional' by local authorities, this word should be withdrawn, that emphasis should be laid upon the word coordination and that the trustees would consider what name should be given to the larger areas, possibly the word 'province.'

"Purpose. That as from the present wording of the proposed constitutions of the councils it might be assumed that these councils proposed at a later date to bring within their ambit other health services, the words 'any services especially' which appeared in line one of paragraph three of the Notes on the Constitution of Regional Hospitals Councils should be deleted from future issues of these notes.

"Functions. That the activities of the trust should be limited, so far as local authorities' hospitals are concerned, to the voluntary coordination of such institutions and the services which they provide and, as a corollary, no attempt should be made to place the local authorities under any more financial or administrative obligations in respect of their hospital services than are in force at the present time.

"Councils. That no council be set up except after full consultation with all interested local authorities in the area concerned and that the negotiations in the first instance so far as the local authorities are concerned should be between those authorities and the central council.

"That every such authority should be adequately represented upon the appropriate councils, the authority's existing or approved hospital provision being taken as the basis for this purpose.

"Divisions. That the division of the country for hospital purposes is not necessarily to be adopted for any other local service. It was pointed out by the medical representatives that the nature of the services would ensure that this would be the case.

"Central Council. That the trustees would consider the reorganization of this body with a view to a reduction in numbers and the adequate representation of local authorities thereon.

"Medical Advisory Council. That the medical officers of health of both counties and boroughs should be represented on this council."

The Man Nurse

His Contribution in One Community

LeROY N. CRAIG, R.N.

Superintendent of Nurses
Pennsylvania Hospital School of Nursing, Philadelphia

THERE began in this country about 1910 a strong movement for improving the medical and nursing care of the mentally ill. More emphasis was placed on the need for physicians and nurses having special grounding in psychiatry as a necessary part of their preparation for work in this field. Paralleling this development, stress was placed on specialization in other branches of medicine, including urology.

Out of these developments came the decision of the managers of Pennsylvania Hospital to establish a school of nursing for men. Men nurses of a high type were needed in the hospital and in the community to meet the requirements springing out of the advances in medicine in a center of medical training such as Philadelphia represents. In 1914, the school of nursing for men was organized.

In selecting students for admission to our school, an effort has been made to encourage only those who seem to have good ability, character and personality. The opinions of teachers and other qualified persons are carefully considered. Interest and ability in athletics are real assets to the man nurse in bolstering the morale of men patients. The nurse who can discuss and participate in sports often obtains a response from patients who may be otherwise indifferent.

Entrance tests are given to all students before enrollment. One applicant out of five who have otherwise qualified succeeds in meeting the entrance tests requirements. Intelligence tests, reading scale tests, vocabulary tests and performance tests are given. In addition to the test results, the attitude and bearing of the applicant during the examination are noted.

Each applicant is shown some departments of the hospital. He usually sleeps in the hospital the night before taking the tests. He goes to the nurses' dining room for meals. Notes are made of the impression he makes in all these areas.

A personal interview with the superintendent of nurses follows the testing program. The applicant is given an opportunity to ask questions and to indicate how he feels about the program. His probable ability to undertake the program is discussed with him frankly and he is told what he will have to contribute in order to succeed in the nursing field.

During his whole training period, the student has every incentive to accomplish personal and professional growth. There is strong leadership from members of the teaching and supervising staffs. Older students acquire positive qualities of leadership to their benefit and to the benefit of men in the newer classes.

To prepare the man nurse for adequate service to the community, the school of nursing teaches the curriculum recommended by the National League of Nursing Education. Particular emphasis is placed on psychiatric nursing. The need for developing qualities of leadership and understanding is stressed. Resourcefulness in interesting patients in outdoor and indoor games is encouraged as are interest in good literature and the ability to select

books to meet the interest of individual patients.

In the genito-urinary nursing field, advances in technics, treatment and care have required a considerable expansion of the teaching program. The teaching includes formal lectures by physicians and supervisors. It also has come to include a considerable number of hours for each student in the genito-urinary clinics, where he observes and assists in the treatment of conditions that are not hospitalized.

In general, the effort has been to adapt the curriculum to the needs of the man student. The intent of the curriculum is not that it should be followed slavishly but that it meet the special needs of each group and each institution. With men students, the aim should be constantly to include subjects and services in the curriculum which will hold the interest of the student and which he knows he is going to have need for in his field. Adherence to this plan maintains the student's confidence in his school and in the existing need for his services in nursing.

The demand for licensed men nurses has been growing. In the public mental hospitals men nurses are being placed as supervisors of the men's wards. In this field men nurses have done much to create a more understanding attitude in attendants caring for the patients, although it is evident that there is a long way to go. Better and more adequate housing is needed for patients. A definite program of teaching for attendants, who should be carefully selected and protected by a merit system, is needed. In this field lies one of the main opportunities for nurses. A high type of man is needed for this task. He should be willing to amplify his nurse's training by college work to prepare him for teaching, supervision and the selection of personnel.

In the general hospital, the man nurse is faced with a similar opportunity and responsibility. In order to place the nursing care of men patients on a basis that will compare favorably with that given women patients, men nurses are especially needed. To meet this need satisfactorily, some of our hospitals have created special places for men nurses. Generally, they have been made charge nurses or supervisors of the genito-urinary service. In a given situation, the man nurse, acting as a supervisor, has carried responsibility for teaching interns, men and women student nurses and orderlies. This program requires a high type of man nurse. He must possess ability as a teacher and supervisor. If necessary, he must be willing to prepare himself by postgraduate study.

Hospitals that are willing to create places of responsibility of this type and make adequate salary provision are creating a better concept of what constitutes representative nursing care for men patients. The "orderly problem" can be controlled better than it ever has been before. Men nurses in these positions should be regarded as key people in the nursing organization of the hospital. Every effort should be made to enable them to maintain a home and to have the advantages of a normal home life. This reacts to the advantage of the hospital and its service.

Private duty nursing has been a constantly growing field for graduates of our school of nursing for men. This service has extended to practically all the hospitals in the community and to private homes. The ability of the individual graduate to adjust himself to the patient, the family and the needs of the situation has borne positive testimony to the soundness of his educational background.

Other fields, including industrial nursing, have absorbed their share of the men graduated from the school. The Army and the Navy are now taking a considerable number of men from our group.

Graduates of the school, through their alumni association, are taking an active part in the activities of the nursing organizations.

Medicine and nursing working together have solved many difficult problems. There have come greater tolerance and a broader outlook. The woman physician, the man nurse and other professional workers have come to be recognized as necessary cogs in a complex mechanism geared to give a high quality of service to the patient and the community.

Surgery in the Small Hospital

THE first condition for the control of surgery in the small hospital is that there must be at least one man on the board of trustees with real courage. This trustee should realize that 60 to 80 per cent of the work in most small hospitals is surgical and that this surgery must be good.

The second condition is that there must be at least one thoroughly competent surgeon. If the hospital has about 50 beds, it is often better to have just one good surgeon rather than two or three. All major surgery should be restricted to the competent surgeons who have had modern training and ample experience.

Before being allowed to do major surgery on his own responsibility, it might be required that a surgeon perform from 200 to 500 major operations under supervision during the preceding two to four years and with a mortality rate not exceeding 4 or 5 per cent. Surgeons certified by the American Board of Surgery might well be accepted on this qualification alone.

The third condition is an insistence that the professional work of the hospital should merit and receive the approval of the American College of Surgeons. The principal stumbling block for most small hospitals is the requirement of adequate medical records. Usually, the small hospital must have an open staff, which poses a very different situation than is found in hospitals with closed staffs.

If medical records are not adequate the trustees should impress upon the staff that adequate medical records are far more important than adequate financial records and that an intelligent and careful medical audit is more significant than a financial audit.

The fourth condition is that the staff must make regular comparative mortality reports. These should be presented to the board of trustees in writing and, preferably, be supplemented by oral comment. There is no better index of quality of care than a carefully prepared annual mortality report.—W. S. RANKIN, M.D., *Duke Endowment.*

New Sources of Income

ROBERT HUDGENS

Superintendent, Emory University Hospital, Emory University, Ga.

WHAT has happened to hospital income in the past decade? To answer this, I analyzed accounts at Emory University Hospital for the years 1930, 1935 and 1940.

The first fact to emerge was the disparity of income per patient day in 1940 as compared with 1930 and 1935. The total income for 1940 was 2 per cent more than for 1930, but patient days were 14 per cent less. The 1940 patients stayed in the hospital fewer days. At the same rates they paid more per day than 10 years earlier. This is explained, in part at least, by the usual concentration of expense in the first week. Not overlooking the advances in treatment, it would seem safe to say that the depression contributed in teaching people to buy hospitalization on the short order plan.

The average length of stay in 1930 was 10.5 days; in 1935, 7.5 days, and in 1940, 8.5 days. This would seem to establish the conclusion that while the hospital stay is now less for the patient the hospital, when selling the same number of days of service as formerly, is better off financially. This obviously is a gain both to patients and to hospitals.

Trend Toward Private Rooms

Inquiry was made into the relative demand for private room and ward service during the three periods under study. Most southern hospitals, I believe, accept private cases in wards. The trend was successively toward private room service but not impressively so. In 1930, 71.4 per cent were accommodated in private rooms; in 1935, 72.4 per cent, and in 1940, 75.8 per cent. This would have a slight bearing in increasing the income per patient day. Too, it may follow that as hospital stay is reduced more patients may afford private accommodations. The longer the stay, the less money there is for luxury.

In 1930, 17 per cent of patients subscribed for rooms priced at $7 or more. This dropped to 6 per cent in 1935, but in 1940 was up to 15 per cent.

When this survey was begun, it was expected that the most pronounced trend would be found in changing sources of income, that is, who paid the bill—patient, divisions of the state, insurance funds, philanthropy, employers or religious groups. In examining these findings it has to be borne in mind that this hospital is a private institution with only a relatively small charity service. Endowment is negligible with the result that, practically speaking, the patient has to pay his bill or get someone to pay it for him.

Private Charity Negligible

In 1930, 93 per cent of patient days were billed to the patient; 7 per cent were donated to him, but of these 4¼ per cent were underwritten by the Methodist Church. The hospital absorbed the loss of the special rate made to the church, absorbed bad debts and an occasional free patient, but patients got practically no help from any other source.

By 1935 little change was discernible. Nine instead of 7 per cent of the patient days were being financed by organizations or individuals other than the patients themselves. In 1940 this figure had climbed to 15 per cent, but more significant than this increase itself were the avenues of assistance that had opened and that now give promise of widening even more rapidly. The hospital has literally moved out into the community.

Private donations for charity remained a superintendent's dream until 1938. Then dreams began to come true. Gifts, exclusive of those for equipment and expansion, in 1940 totaled $13,412.55 and meant some 3000 days of free work formerly denied patients or devolving on the hospital.

Group hospitalization came in November 1937. Here the bill is not paid by a patient but is prepaid by hundreds of potential patients. The tentacles of group hospitalization do not yet go down deeply enough to benefit greatly the underprivileged, but this plan accounted for 8.6 per cent of our revenue in 1940. If we should add bills paid through reciprocity with other service plans, the percentage would rise slightly. Group hospitalization has done even more. It has been of inestimable service in making the public hospital conscious and friendly. It has taught the technic of painlessly spreading the financial calamity of one over many.

Accounts for 1935 show that groups not participating in a hospital service plan were applying its principle to themselves in company or social mutuals. None of this was apparent in 1930. In 1935, 2 per cent of patient days were financed in this manner. This figure dropped to 1 per cent in 1940, probably owing to the growth of and confidence in the United Hospitals Service Association.

Insurance Cases Increase

Commercial insurance cases have shown a remarkable increase. In the period from 1930 to 1935 we found only 0.4 per cent chargeable to insurance companies, but subsequently numerous companies began the sale of hospitalization. Since the hospital does not accept payment from these companies, accounts do not indicate those patients behind whom an insurance contract stands. Our only gauge is an estimate based upon the number of insurance reports we are asked to execute for patients filing claims. A calculation so estimated suggests about the same number of patient days for commercial insurance contracts as for our own service plan, or 5515.

Bills paid for patients by an employer, either with or without expectation of remuneration by the patient, were present in 1935 to the extent of 2 per cent of the total patient days. There were less than half as many of these bills in 1940,

From a paper presented at the Southeastern Hospital Conference, April 1941.

no doubt because of the fact that other avenues were open, such as hospital insurance, state aid or free service. Too, with the establishment of group hospitalization, the hospital canceled all special rate agreements with industry and referred these corporations to the hospital service plan.

The changing rôle of government in hospitalization was among the most apparent observations. Our county department of public welfare was not organized until 1937. Before this time the Red Cross was the agency for hospitalizing any indigent sick fortunate enough to get public help. In 1930 the total expenditure for this purpose in four hospitals was $185.84 and covered both white and colored patients. In 1935 the Red Cross expended $5286.91 for hospitalization. Still the Red Cross was the only public agency doing any work, but it was aided by the Masons, civic clubs and other groups. By 1940 the department of public welfare had taken over and that year paid on hospital accounts $9609.50. The state also contributed in support of crippled children and cancer cases approximately $9000. From one government-paid patient day in the 1930 sampling, the program grew to assume nearly 1 per cent of all patient days in 1935. In 1940 it had risen to 2½ per cent. The percentage will show an increase in the 1941 totals.

One other trend struck us full in the face. As other avenues opened by which patients' accounts were financed in whole or in part, the contributions to indigents from hospital earnings fell off. In 1930, 15 per cent of patient days were charged to hospital earnings. By 1935 this had dropped to 4 per cent and in 1940 it was 0.8 per cent. To state the situation plainly and honestly, the hospital has unloaded its charity load upon other agencies as these agencies would assume the responsibility.

Why does not the hospital continue to make its donation? Why did it not use its funds, augmented by newer resources, to increase the volume of free work? There are several answers, not all justified. I mention one that was and one that was not.

To weather the storm of 1933 to 1935, salaries were cut sharply. On the theory that we owed some consideration to faithful employes as well as to the public at large, we applied some of our recovered funds to wage restorations. The rest we gave away, but as I see it now, they were often misapplied. Private patients were scarce during and following the depression. Hoping to allure a larger census, we established in 1933 a system of flat rates that proved both popular with the public and expensive for the hospital. Only now are we correcting these rates. What we really did, without realizing it at the time, was to withhold support from the truly indigent and give it to the white collar class. This unpleasant fact is clearly mirrored in the accounts studied.

Concessions made by the hospital in 1940, as compared with those made ten years earlier, have shifted to a different social group. They have benefited the middle class at the expense of the indigent. I now expect the shift to turn in the opposite direction.

Divisions of government are steadily assuming more financial responsibility in hospitalizing their underprivileged citizens but are not finding it necessary to extend governmental support to employed persons. These persons now have open to them prepayment and postpayment plans by which they can meet hospital expenses.

Contrary to the usual opinion, private gifts, which are supposed to be passé, have come in greater numbers and for greater amounts than ever before. The era of great fortunes may be passing, but good public relations and good service can go a long way in compensation. It may in the future take more people to get as much money but as yet there is no dearth of contributors.

A Workable Credit Plan

SISTER ANNA

Superintendent, St. Vincent's Hospital, Bridgeport, Conn.

OUR past experience with patients who, upon leaving the hospital, were unable to pay the full amount due on their bills led to the evolution of a credit plan in collaboration with a local bank. This plan has proved satisfactory to both the hospital and patients in its year and a half of operation.

It is a simple matter to explain to the outgoing patient or his representative that the hospital has a personal loan department which is a branch of the bank. From the moment the note is signed, the creditor's obligation ceases insofar as the hospital is concerned and subsequent financial relations are carried on through the bank on a 6 per cent basis. In figuring the discount the bank uses .0638 instead of even 6 per cent. For example, if the unpaid balance of the amount was $96 the interest would amount to $6.12 and the sum due the bank would be $102.12. This payment is made monthly or weekly, as the patient desires.

The bank checks about twice a month regarding the payment due. If the patient should fail to meet the note it is returned to us, according to our agreement, with absolutely no obligation in spite of the fact that we and the patient are co-makers of the note.

During the first six months of operation, 35 personal loans were made and only three were rejected. We find that the plan works out well and that individuals feel more obligated to make payments to the bank than they would to the hospital. This plan does away with the necessity for the hospital's contacting patients for payment on bills and makes for better business relations between the hospital and the community. It is an effective credit plan and one that saves the hospital time and money.

We have also used this plan for the patient who promises to make a payment or to pay the full amount of his bill within a week or two. The note is held as security and the interest rate is charged on the 6 per cent discount basis.

Sometimes it is difficult to discriminate between those who will and those who will not keep their promises, but by having the personal loan or file we have sufficient security to obviate most of the risk.

The Convalescent Center

CORA E. GOULD

Administrator, Children's Country Home, Westfield, N. J.

CONVALESCENT care, as old as Hippocrates, Galen or Celsus, is a worth-while phase of medical care, to be produced at a cost of from 50 to 75 per cent of that of general hospital care, and yet seemingly it is neglected. Who is to blame? We, the hospital people, social workers and the medical profession, are.

Convalescent homes or centers are best divided and classified according to type of cases, age of patients and, perhaps, sex of patients. The reasons for a division of this kind are varied. During the convalescent period atmosphere, proper surroundings, building arrangement and attending personnel are important factors in the patient's life.

Requirements for Groups Differ

Children require one type of nursing care, one type of building and a special type of recreation. Schooling is an important requisite to the child of school age, especially if his convalescence is to be of long duration.

Adolescent patients require a recreational staff especially trained to cope with problems of that age and a nursing staff sympathetic to that age group.

Adults need a setup and a type of recreation that differ materially from either of the foregoing. The entire staff must be sympathetic to the long time confinement of those who may have had an active life and whose illness has caused a change in material possessions.

Occupational therapy is essential treatment in convalescent cases but its application differs greatly in all age groups.

Many times the medical profession, social workers and hospitals seem to confuse the convalescent with the chronic and the incurable. Special organizations with their proper staffs should see to the care of patients in each of these categories. Nor should convalescent homes be confused with institutions for the correction of behavior problems.

Convalescent centers should be further classified into orthopedic, cardiac and malnutrition, diabetic and general types of cases. The reason for this may readily be pointed out. Orthopedic cases need special beds and a special type of equipment, such as Bradford frames, overbed frames, special baths, a gymnasium, splints, plaster facilities and x-ray equipment, together with a staff of special orthopedic nurses and an orthopedic medical staff. Many regular graduate nurses are amazingly lacking in the knowledge of orthopedic procedures; however, the regular graduate nurse provides the best possible care for the cardiac or the general convalescent. Orthopedic centers must have a physiotherapist and an occupational therapist, but physiotherapists are not so necessary to some types of institutions. The orthopedic case and the cardiac case are long time cases and, if mixed with patients whose stay is short, contribute to restlessness and discontent. Diabetic cases require a special dietary department and should not be placed with the orthopedic cases that require no special diet.

Pleasant Location Advisable

Convalescent care should offer the patient a rural or seaside location, near transportation facilities. Clean, comfortable furnishings and surroundings with plenty of fresh air, sunlight and good food, accompanied by some occupation or interest, flowers, gardens, color, pictures and entertainment, should all be available to the patients.

The convalescent hospital should be as unlike a hospital in appearance as is possible. Draperies, venetian blinds, pictures, murals, nurses dressed in pastel tints with no caps and with street-wear colored hose lend an atmosphere that is important to the patient. There should be reservations on this matter of "atmosphere," however. Standards must depend upon the type of patient, private or indigent. It remains a serious and definite question as to just how far to go in the idea of elaborate surroundings, especially when catering to the indigent, for the hospital should avoid setting up false desires that will be unattainable by the patient when he returns to normal life, thereby creating a mental unrest that is far from healthful. To spur ambition toward ideals of cleanliness, neatness and attractiveness is one thing, but care should be taken to avoid creating dissatisfaction to the point of discontent.

High Medical Standards

The medical standards of convalescent centers should be maintained at a high level. It is to be hoped that the American College of Surgeons will inspect for approval more and more of these institutions, thereby ensuring an organized medical staff with the proper consultants, a well-trained nursing staff and the necessary equipment according to the classification of the convalescent hospital.

The convalescent center owes an obligation to the medical profession. If a referring physician is not on the staff it is a good plan to have the staff physician or resident communicate with him as to his patient's progress at intervals of every two or four weeks. This will create a friendly feeling among the doctors toward the center. It may take secretarial personnel and it may be an added expense but it will pay dividends. Referring doctors cannot say, "A patient admitted to such a center is simply lost to me." No such thing should ever occur. Consultants of all kinds should be available to give patients the best of everything medical. All acute attacks or recurrences should be turned back to the referring physician or hospital.

The referring agency should be made to feel that it is still important in the care and life of the patient. It is a good policy to communicate with the referring agency within one or two months after the patient's discharge to inquire about the patient's welfare. Complete charts on all patients should be kept and all follow-ups charted.

Records are usually somewhat remiss in convalescent homes, hospitals and centers. However, records are important. A full and detailed ad-

mission sheet should precede the patient's arrival. This sheet should be signed by the patient's doctor and should contain a full history of the case, enabling the house staff to give the best of care for the important period following any acute illness. It is wise to allow the referring doctor to do his own prescribing, the staff of the convalescent hospital to follow the instructions.

On all indigent cases a social history is necessary. Each chart should contain a picture of the patient on admission and on discharge. A physical examination should be done within twenty-four hours after admission. Doctors' order sheets, nurses' notes and progress notes should be kept on each patient. A record librarian is essential and of invaluable service both to the staff and to the referring medical men. If the institution is small, this person will probably have some free time for secretarial work.

The food problem is most important during this period of a patient's care. Well-planned, colorful, attractive meals served on neat and well-arranged trays or in a bright, cheerful dining room are essential. On all holidays favors add to the delight of patients, whatever their age. During the summer flowers add to the trays and tables; during the winter candlelight makes for atmosphere. Children are especially susceptible to these attentions which can be added at practically no extra cost. A good chef is worth what he costs the hospital from the standpoint of economy and of tastiness of food. All of this care can be furnished to community, doctors and patients at a cost of about one half the cost in general hospitals. This is possible because there are no emergency service, no operating facilities and no accident cases and because admissions are usually scheduled ahead and can be made at the hospital's convenience. Equipment, too, is not so costly as that required in a general hospital.

Convalescent hospitals serve the general hospitals by helping them clear the beds for acute and expensive cases. They serve the public by making it unnecessary for patients to be discharged and sent home too soon, perhaps to a relapse. But this type of institution cannot hope to get the confidence of general hospitals until the proper nursing staffs and equipment are provided.

Making Room for the Acutely Ill

JOHN W. SHERRICK, M.D.
President, Alameda County Medical Association

ARISING out of the present national emergency with its kaleidoscopic changes, which are affecting every phase of our daily lives, there has developed an apparent shortage of available hospital beds. Under existing conditions, hospitals are finding it difficult to meet the demands for accommodation for those who need hospitalization. Running hand in hand with the shortage of hospital beds is the mounting cost of living which tends to make hospitalization expenses more and more burdensome for a large percentage of our citizens.

On analysis of hospitalization problems it would seem that this shortage of beds is in part actual and in part only relative. It reveals, too, certain abuses and defects, correction of which will serve to relieve materially the pressure now existent upon hospitals and should lessen somewhat the financial burden imposed upon those requiring hospitalization.

One notes all too frequently the tendency for policy holders to abuse the privileges granted by their hospitalization insurance by unnecessarily prolonging their stay in the hospital, while they are depriving acutely ill patients of accommodation so essential for their welfare and recovery. One notes further that many patients, forgetful of the fact that hospital services are for the acutely ill patient, prolong unnecessarily their stay in the hospital purely for convenience to themselves or to their households. In this they are too often encouraged by their physicians who wish to avail themselves of the convenience and facilities that a hospital affords.

Moreover, the use of hospital facilities for certain study problems and for minor treatment procedures that can safely and with reasonable efficiency be carried on in the physician's office should be discouraged.

The answer to certain of these problems is quite obvious. Moreover, there are available or can be developed rest or convalescent homes equipped with personnel and facilities to give adequate care to certain types of patients and even to provide luxuries for those who cannot return to their homes for convalescence yet who do not require the more specialized service that is available only in well-equipped general hospitals. Utilization of these rest homes would lessen the present strain upon hospitals for patients' accommodation by bringing to an end the use of hospitals as a place for rest and for the care of chronic ailments and of minor and convalescent conditions. Moreover, such a plan would serve to lessen materially the expense imposed by illness.

Such a plan to be feasible will require intelligent understanding and full cooperation on the part of the laity, of physicians and of hospital managements. The main burden of educating the public with regard to such a scheme must of necessity fall upon physicians; it may be shared, however, by other interested groups. Details of the plan can be developed with relative ease. It is suggested that various medical and specialist groups in cooperation with hospital managements survey the present procedure and canvass the potentialities of the proposed scheme, offering a revised routine of hospitalization for the different types of cases that present no unusual complications and whose period of hospitalization may safely be curtailed. Naturally, the final decision must rest with the patient's physician.

Such a plan as suggested would seem to present a challenge incident to the needs of the moment and to carry out the spirit of patriotic cooperation requested of our citizens in these times of national stress.

Educational Possibilities of the Central Supply Unit

SISTER ANNA RITA
St. Joseph Hospital, Paterson, N. J.

THE central supply unit is the mechanical heart of the hospital, dispensing articles and receiving them again for inspection, repair or replacement. It is here that the student of nursing becomes aware of the pulsation of the entire plant and is able to view the intake and output of therapeutic materials at a glance. The record books and requisition sheets in the central supply unit are the key to the program of budgeting the supplies of individual departments. While at work in such an environment, the student can develop a sense of values and proportion and an appreciation of the necessity for the efficient functioning of each part for the benefit of the whole.

Our work unit at St. Joseph Hospital consists of three specific sections: receiving and replenishing, sterilizing and storing sterile equipment. In addition, ample storeroom space is allotted.

The walls of the receiving and replenishing section are lined with steel cabinets and drawers which contain equipment for general use throughout the hospital. Here the student nurse becomes familiar with all types of special equipment and is given instruction in connection with its value, use, care and storage.

We are fortunate to have in our employ a skilled mechanic who is able to make carriers for special work, such as orthopedics and ophthalmology. The eye cart, to cite an example, is electrically equipped, has its own rheostat, ophthalmoscope, medication rack, charts for testing vision, jars and containers for instruments and other items required for the examination and treatment of the eye.

The surgical dressing carts form a noteworthy part of the equipment of the central supply room. Eight in number, they are sent out fully equipped to the departments in which the dressings are to be used, the student nurse from the central supply room assisting the surgeon. To check and supply these carts and thereby to be responsible for their care and use assuredly aid in the development of the student nurse.

In the cabinet section of the central supply department, materials are arranged according to their use. For example, tubing for intravenous and transfusion sets is grouped together, while supplies for the maternity units are in another part of the room. Conveniently located are a number of sinks and work tables of stainless metal, which facilitate the work of those engaged in the service. Many well-organized time-saving procedures are given to the students by a teaching supervisor.

Trays for all procedures are equipped and prepared for use in the

Two views of the central supply room at St. Joseph Hospital. Each student nurse who enters the hospital's training school spends eight weeks in central supply service where she becomes completely conversant with all therapeutic equipment and supplies. Here, also, the student nurse acquires a practical knowledge of the principles of sterilization.

central supply room. Once in twenty-four hours the trays, such as hypodermic and thermometer trays, are returned to the department to be checked and replenished as needed.

Requisitions and control of equipment, such as trays, inhalators, oxygen tents and Wangeensteen apparatus, are simplified by an electric clock in the receiving unit which records the exact time that equipment is taken from the department. When it is returned, the requisition slip is stamped with the date and time it was returned; then it is filed. A daily record is kept of the number of trays and amount of supplies dispensed. A report of all equipment used is sent at the end of each month to the office of the administrator and to the school of nursing and a copy is kept on file in the central supply room.

The sterilizing department contains autoclaves, water sterilizers with 25 gallon storage tanks and a still for distilled water used in making solutions to be administered parenterally. All solutions for irrigations are made by this department and suitable temperatures for a supply of them are maintained by a heating cabinet so that solutions are always ready for immediate use. It is here that the student receives intensive and careful instruction in the principles of sterilization. The supervisor's undivided attention to this important phase of hospital work is available at all times.

With the exception of food and drugs this unit, as its name denotes, is a central control for every type of article dispensed in the hospital. It is stocked for the distribution of household articles, new linen, record sheets, order books, orthopedic equipment, laboratory supplies, isolation units and all operating room material, to name a few.

Those engaged in bedside nursing, relieved of duties performed by the nurses of the central supply unit, find that more time is available for actual care of the patient. For example, the 101 indirect blood transfusions given in the month of October would have been practically impossible without the aid of an efficient organization.

Just what benefits do student nurses enjoy by spending a period of eight weeks on a project of this description?

A knowledge of budgeting and a spirit of economy are gained through participation in the daily checking of all materials dispensed by the central supply room. This sense of values is accurately developed by means of firsthand contact with equipment and supplies. Procedures are learned rapidly and systematically because of the opportunity to concentrate on one thing at a time, an important law of learning. Skill is acquired from the constant and well-supervised handling and organizing of treatment trays and modern equipment.

The students not only are taught to set up complete and neatly arranged trays but also are encouraged to develop good judgment in the use of materials. In addition to this, the student leaves the department with practical knowledge of the principles of sterilization.

WOMEN'S SERVICE GROUPS

Five Branches Help

• Five branch auxiliaries comprise the county auxiliary to the Homeopathic Hospital of Chester County, West Chester, Pa. These branches sponsor a wide variety of projects, such as "blanket clubs," which continue throughout the year.

The West Chester auxiliary, for example, had a profit of $1000 last year. Among its annual activities are a hospital birthday supper, a bake sale, a turkey dinner in November, card parties and a horse show. In addition, two of the branches participated in the solicitation of funds for the community chest drives, one receiving $900 and the other $600. A visiting committee consults with Jane M. Boyd, the administrator, and recommends to the auxiliaries the items that the hospital needs most. All equipment is purchased at the discretion of the administrator and is labeled, if possible, with the name of the benefactor.

Diversion for Adults

• Diversional therapy for children is practiced by many volunteer corps, among them the volunteer service at New Haven Hospital, New Haven, Conn. This institution, likewise, has a group in its volunteer service large enough to reach all patients desiring company or diversion; it is directed by a volunteer who has had experience in this particular field. As described by Mrs. Bettina Jones, chairman, the work is carried on in close association with the medical staff, only those patients designated by nursing supervisors or by medical social service workers being visited.

"The volunteers are told," asserts Mrs. Jones, "which patients simply want conversation, which would like to play games or to be read to and which are well enough to do some handicraft. Volunteers, if carefully chosen, can render a valuable service in this field, especially to those patients who are far from home and have few visitors and to those who have to be hospitalized for a long period. But since this work brings them directly into contact with the patients, it is important that the closest cooperation be maintained at all times with the medical staff."

Here and There

• Members of the auxiliary of the Abington Memorial Hospital, Abington, Pa., are making sure that their hospital maintains its record for progressive standards. Recently, it raised funds for the establishment of a plasma bank as a memorial to the late Mrs. George H. Lorimer.

• What about a movie benefit in your local theater? The senior auxiliary of the Children's Country Home, Westfield, N. J., selected the film "Blossoms in the Dust" as being particularly appropriate. It proved popular, too, running four days and netting a profit of about $350.

Each year, every member of the group is pledged to give $10. With 60 members enrolled an additional $600 is obtained. For the rest of this season the women will concentrate on volunteer work at the home. "And there is plenty of that to be done now," states the president, Mrs. William W. Troeber, "with the shortage of nurses and other help."

• Despite the fact that it was organized only last March, the St. Luke's Hospital Club, Middleboro, Mass., boasts a membership of 125 and an average attendance of 70 members at its monthly meetings. One reason for this is that something special is planned for each such gathering. Mrs. Nellie A. Kelley, president, reports card parties, cake sales and a dance as among the projects to date; $522.26 was taken in during the first three months of the club's operation.

Judging an Administrator

RAYMOND P. SLOAN

WHAT does it take in the way of an administrator to keep a hospital running even 75 per cent efficiently? It is no longer sufficient that the administrator be merely between the ages of 30 and 40, single and of active and firm mind. Of primary need is it that the administrator be selected for his or her adaptability to the pattern of the individual hospital.

To systematize the discussion of what a trustee looks for in judging a hospital administrator, 16 basic qualifications will be outlined.

1. Education: The administrator should conform to the standards established by the American College of Hospital Administrators. He should possess sufficient practical knowledge of hospital work to enable him to speak with authority. This specialized hospital knowledge is in addition to his own background, whether it be in medicine, nursing or just plain business. Some business ability is essential. Most important of all is a live social conscience.

The administrator's education must include some cultural background for education is not measured by degrees but by a broad knowledge with which to enrich our personal lives and the lives of others.

The administrator should be well read, should be able to talk on a wide range of subjects, should be conversant with current trends and thoroughly posted on everything pertaining to his work. He should have definite leisure-time interests and hobbies to suit his personal tastes and talents.

Case Study: John X knows hospital management. He has worked his way up from the ranks. His services are to be recommended to any institution with a financial statement that shows red tendencies. He has a way with him in making budgets behave.

The education of Mr. X stopped with high school, unfortunately, and he has done nothing to carry on from there. The result is he is ill at ease with his board members; they create in him a feeling of inferiority. He has confessed at times to actual suffering when he is obliged to meet them outside the hospital and engage in general conversation. His board members sense his feeling of insecurity and may be inclined at times to take advantage of it. There is a bit of the bully in most of us. Until he puts in some time on extracurricular activities and broadens his outlook he can never hope for major rating.

This 16 point program is a guide for present evaluation as well as future appraisal. As you apply it to the superintendent of your choice, you may be surprised to find how well he passes muster. Or you may recognize your own administrator's characteristics hidden behind an alphabetical designation in one of the case studies

2. Personality: Without a pleasing personality, how can the administrator hope to promote good will within and without the institution? He must possess the ability to attract people and to inspire their confidence and loyalty. At the same time he must beware the pitfalls that beset the good fellow.

Case Study: Consider the case of Henry Z, an extremely likable young administrator who became popular within the community and without. No program was complete without him. He was asked to serve on all manner of committees. His trustees looked approvingly until they awakened to the sad truth that Mr. Z was practically everywhere except where he was paid to be and that his abilities as an entertainer far exceeded his talents as a hospital administrator. They finally decided in favor of someone who was not quite so dynamic.

3. Spirit of Service: Without this intangible something, it is unlikely that any man or woman will succeed completely in hospital work. He must have deep within him the desire to help those less fortunate, to be always mindful of the fact that it is the patient about whom the entire institution revolves and that it is the patient's comfort that comes first. Sympathy and understanding, therefore, are requisites.

4. Imagination: This is important in hospital work as in every other line of endeavor. Imagination is the spark that kindles new enthusiasms and interests on the part of every worker and that wins recognition for outstanding achievement to the institution as well as to the individual.

Case Studies: Mary T visualized the value of board members of various hospitals within the community getting together three or four times each year to discuss their mutual problems. She got in touch with the administrators of the hospitals involved, outlined her plan and solicited their cooperation. That was two years ago. Today eight or nine hospitals comprise a group that meets regularly. They are learning from one another, which is the most effective type of education.

Donald M was troubled over the relationship existing between the trustees and his medical board. Some

From a talk delivered before the New York Institute for Hospital Administrators, Oct. 20, 1941.

of the board members actually did not know who their doctors were, and vice versa. His imagination got to work and envisioned a social gathering at which the two groups would meet and exchange greetings over food and drink and, perhaps, listen to a talk by someone of reputation. The more he played with the idea the more convinced he became that it would supply the spirit needed. He broached the matter to the chief of the medical staff and to the hospital president. They were willing, enthusiastic, even. Today meetings, largely social in character, are held regularly two or three times a year, the doctors and the trustees taking turns acting as hosts.

5. Initiative: Those who are destined for success in their chosen professions never have to be told. They go ahead using their own best judgment and capabilities. They will make mistakes, of course, but each mistake will mark a stepping stone to a higher goal. Because board members are busy people and not always available they expect their administrators to be capable of acting on their own.

Case Study: Robert S was forever calling on the president of his board for advice and support. Fearful lest he make a false move, he would consult him daily, sometimes several times a day. It gave the president an idea. If he was going to run the hospital why should he not get the credit for it—and the salary? So he moved in, first to an office next to Mr. S's and, finally, into Mr. S's very room.

6. Executive Ability: This has been described as the happy faculty of assigning work in such manner that the recipient considers it a privilege rather than a task. It assumes, also, the ability to organize.

The true executive possesses the ability to organize his own work and that of other people, including the trustee, recognizing that systematic planning is essential to make every minute of the work period productive.

The board of directors' meetings is a work period, or should be. The trustee expects his administrator, therefore, to display his executive ability by planning that meeting so that it will be brief, interesting and educational. He wants the facts put before him concisely and accurately, with the financial statement and possibly the agenda sent to him a day or two in advance so that he may come prepared. He wants a report on occupancy, with comparable figures of the preceding month and the preceding year. He wants to be informed on the institution's progress. He wants a report on the physical plant. He wants to be posted on medical progress, any contribution to medical science made by the doctors. He wants a report on the number of necropsies, on any serious or unusual accidents that may have occurred, any major complaints. He wants the whole picture briefed.

The trustee does not deliberately attend meetings to sleep. It is only the monotonous recital of lengthy reports that lulls him to slumber.

7. Understanding of Human Nature: His close contacts with people of all walks of life make it essential that the administrator be a student of human nature. He must understand people, bringing out the best that is in them and never losing faith because they do not live up to the standards he has set for them. He should judge, but not condemn, detect weakness and be quick to recognize strength.

8. Diplomacy: Probably no other vocation requires more tact and discretion in handling people. The administrator must enforce ideas that in his own best judgment are sound despite whatever opposition may develop and he must do so with the least disturbance to the morale of the individual or group.

Case Study: It cost Frank L one good job before he learned that being diplomatic does not mean extending privileges to various board members, acceding graciously to any request made, such as discounts on their bills, providing employment for their poor relations and purchasing commodities they or their friends may have to offer. He became so involved he couldn't say anything but "yes." Finally, even the board got tired of hearing it. The men, then, mended their ways, and their administrator, by hiring someone else. Mr. L learned his lesson. Today he says "no" with a smile.

9. Courage: The administrator must have the courage of his own convictions, the strength to stand up and fight for what he knows is right, the strength to refuse to bow to or to accept compromises that mean the sacrifice of any of the hospital's standards.

We admire anyone who will fight for what he knows to be right. In this respect the hospital trustee is no exception. On the other hand, there is a bit of the bully in most of us. We will try to get away with as much as we can. In this regard, too, the hospital trustee is no exception. Though it may cost the administrator his job, he must stand up and speak his piece. It may win for him new respect and consideration; certainly, his chances for success are far greater than if he were to remain weakly submissive.

Case Study: Joseph F had for years witnessed a sad spectacle in the hospital in which he served as business manager. There had been a thorn in the flesh of the estimable nurse who had for a long period been superintendent of the institution. It took the form of a woman trustee, prominent in the community and wealthy. Almost daily he watched her flounce by his door, past the office of the superintendent and through the swinging doors leading into the hospital, where she proceeded to give directions right and left.

Mr. F was helpless then, but the day came when he found himself sitting in the superintendent's chair. As he sat there, he heard familiar footsteps coming down the hall. Then the door opened and he realized that, with the job, he had fallen heir to one of its biggest problems. He listened respectfully as the well-meaning board member extended congratulations, adding, "I just know we're going to work happily together."

This was his chance. It was now or never. He grabbed the arm of his chair and started in, "I'm sure that we will, Mrs. X, provided we have a distinct understanding on one or two points. Certainly, the hospital owes much to your interest and support. Today it has done me the honor to make me its administrator. As long as I am its administrator I am going to run it. There can't be two heads to any organization. My office door is open at all times. Your suggestions are always welcome. Those doors leading into the hospital are closed, however, unless you enter them with me."

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Mr. F went home that evening with the satisfaction of having held the job he wanted for one day at least. He felt sure it would be no longer, but he also had the happy feeling of having righted a persistent wrong.

The ending is a happy one as may be surmised. The lady trustee saw the point, even apologized and Mr. F is still there. So is the lady trustee.

10. Patience: There are certain changes that cannot be effected at once, no matter how important they may seem. There is little to be gained and much to be lost by deliberately precipitating unpleasant relations that could have been avoided by waiting.

Case Study: Edwin C had a problem involving his operating room supervisor. There were complaints from men on the staff that she favored one doctor over the others. Because this man was influential, the situation became a delicate one. Had Mr. C deliberately accused the nurse and made an issue of it, the entire morale would have been lowered. Instead, it was decided to let her hang herself by permitting her attitude to become so apparent that there would be no question about her lack of cooperation when the problem was brought up for discussion and settlement.

It took several months to bring this about, but when the change was finally made its reason was known. On the other hand, had such delay endangered the welfare of the patient, it could not have been permitted.

11. Loyalty: The administrator must keep faith at all times with the board that employs him, the institution he is serving and the community in which he is working, at the same time remaining loyal to his own ideals and beliefs.

12. Emotional Stability: Display of temperament, while unfortunate on the part of any hospital worker, or anyone else for that matter, becomes inexcusable when displayed by the administrator. If he suffers from jumpy nerves, he might better seek surroundings that are less exciting or take definite steps to overcome them. Nervous irritability is a privilege that should be reserved exclusively for the patients and their relatives.

13. Sense of Humor: This probably deserves a more important position among those requisites that the trustee looks for in his administrator, for without a sense of humor the administrator is lost, indeed. Opinions vary as to what constitutes a sense of humor. We are assuming humor compatible to decent administration. The administrator will find ample opportunities for its use and he should be able to enjoy a laugh at his own expense. None of us can afford to take ourselves too seriously.

14. Sense of Fairness: He cannot be a good executive who does not treat others as he himself would like to be treated. He should be willing to hear all sides of every question but close his ears to petty gossip, forming his own conclusions without bias or prejudice.

15. Willingness to Accept Criticism: No one can succeed in hospital administration or in any other line of endeavor who refuses to accept criticism, particularly constructive criticism. The administrator must be receptive to suggestions and ideas even though these ideas may not wholly coincide with his own.

This point is particularly important because as the trustee becomes more intelligent on hospital affairs he will become more critical but more intelligently critical.

Hospitals are being challenged. We are hearing more and more about surveys of individual institutions as well as community health services and the hospital's part in those services. The administrator who is sincerely trying to do a good job will welcome, even encourage, his board's seeking outside advice in solving certain problems.

Case Studies: Herbert A had been identified with his institution as administrator for ten years. Like other institutions, it had its problems, some of them involving the medical staff and plans for a building program. Unfortunately, there was little unity of thought as to the future growth of the hospital.

"Perhaps the fault is mine," Mr. A stated plainly in the presence of the president of his board. "If so, I want to know it. I would sincerely welcome any constructive ideas, even if a change in management seems advisable. It is not to my advantage or to the advantage of the hospital to remain if I am not serving effectively."

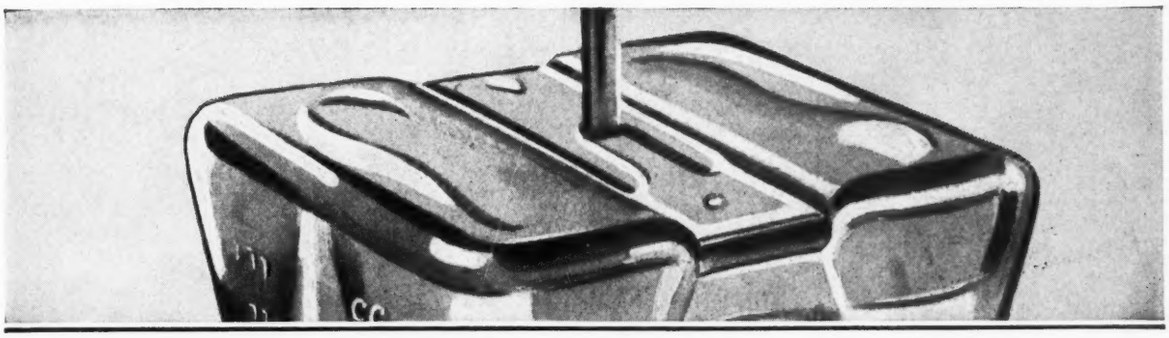
16. Leadership: Finally, the trustee looks to his administrator for leadership, for guidance and counsel. He expects him to command the respect of the medical board, to organize a strong team on which every individual knows what his precise functions are and how he can best supplement the efforts of others.

The trustee expects his administrator, as the head of an institution that is becoming more and more an educational center, to assume the rôle of teacher. He should be able to interpret the part the hospital plays in public health work. If he is to interpret hospital service effectively to various groups, he should be able to talk convincingly and to express himself in writing. He will be judged by the reports he makes before local groups as well as by his writings in professional journals. His affiliations with national, state and local associations will lend prestige to him and to the institution he represents.

Every administrator knows whether or not he is doing a good job. No place is he going to find things precisely as he would have them. He should make sure he has exhausted all the possibilities of learning the answers to his problems before he starts looking elsewhere. He may detest the sight of John Smith and Paul Jones, who are prominent members of the board. He may doubt their motives and he may rankle under their rule. Perhaps he feels that another job would free him from such undesirable associates. But he will find John Smith or Paul Jones, under other names, perhaps, wherever he goes.

Only a year ago a young administrator sought help in finding another job. His problem centered about the president of his board, who was "cutting up a bit." He was unhappy and wanted to get away from it all.

He was advised that if he were lucky enough to get another opening he would be up against precisely the same problem with some other board member; it was suggested that he show what he had in him by facing the situation squarely and learning how to handle this recalcitrant board member. He listened attentively and decided to give it another trial. He is still in that job today.



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To Conserve Laundry Equipment

Mind Those Squeaks!

CHARLES PAGE
Henrotin Hospital, Chicago

WITH hospital equipment becoming increasingly difficult to procure, it behooves us to take the best possible care of what we have so that its life may be prolonged and its efficiency increased. This is particularly true of laundry equipment.

The maintenance of laundry machinery begins with the employment of the laundry manager, for it is he who is charged with the protection of the sizable investment in laundry equipment and in hospital linens.

Frequently, hospitals place the responsibility of managing the laundry, or at least a portion of the responsibility, on some individual outside the department who has no conception of its immediate needs and problems. Sometimes, they employ a man because he is willing to work for a small salary rather than because his ability qualifies him for the job. Such procedure is an injustice to the department and a detriment to the institution because the savings in maintenance costs of machinery, linen replacements, power, supplies and labor hours effected by an able man, justly compensated, offset many times the difference in wage.

Detect First Warning Signs

While maintenance of machinery is an engineering job, it is the laundry manager who is responsible for the perfect operation of his machines. If he and his crew of workers are constantly alert to detect the first signs of trouble, it seldom will be necessary to call the engineer.

A card system to provide a positive check on the condition of each machine has been adopted by many laundries. This system is an assurance that every piece of equipment will receive careful and regular attention. There is a card for each machine in the plant, on which are written its name and identification number. These are filed in alphabetical or numerical order and whenever work is done on a machine a memorandum is entered on the card, thus providing a permanent record. It is imperative, of course, that these records be kept up to date.

Lack of lubrication is the cause of most machinery problems. The natural wear and constant destruction of parts resulting from friction cannot be eliminated entirely, no matter how sturdily the machine is constructed. Since breakdowns often occur during a peak-load period when all machinery is needed, every plant should keep a supply of key parts on hand.

Upon the perfect performance of the washers depends the effective processing of linens to meet the requirements of the medical and nursing staffs. The wash man should be fully aware of the importance of his machines and of the capital invested in them. He should be alert to note and report immediately any unusual noise or action of these machines. If he understands their importance, the proper daily routine will become automatic. This includes clearing out the water and steam lines of the wash wheel for a few seconds to allow any impurities to be carried down the drain before starting the machinery, carrying normal loads as advised by the manufacturer and controlling the speed of the wash wheel by using power transmission belting as specified by the manufacturer. Since no washing formula can be controlled without proper operation of the inlet and outlet valves of the wash wheel, a daily check should be made to ascertain whether these valves are functioning properly.

In all laundry machinery there is an element of danger to the worker. This is true particularly of the centrifugal wetwash extractor owing to its high speed, which may vary from 800 to 1200 r.p.m. Operators must be made to understand the importance of loading these machines properly. When loading the extractor, linens should be placed clockwise, as close together as possible, the operator continually pressing the linens against the side of the basket as he turns it clockwise. Thus, when the process is completed and the moisture is extracted from the linens, the space in the center will be clear.

Proper lubrication of the extractors is vital; unless regularity is observed, breakdowns or insufficient extraction will result. The daily observance of the following routine is necessary for adequate protection of the hospital investment in machinery and linens: lubricating the clutch of this machine's power transmission pulley to prevent friction on belting and overload on the motor; lubricating the spindle shaft at the base of the extractor to ensure proper speed and balancing of the basket, and avoiding crossed linens in the basket when loading to prevent tears by centrifugal force during the operation.

Tumblers for Economy

Rough-dry tumblers are the most economical of laundry equipment; when properly used they are of great value. When small institutional plants have an insufficient amount of steam pressure for flatwork ironer production or when the extractors are not adequate for the volume of work, the rough-dry tumblers will be found helpful auxiliaries to semi-dry linens, saving the labor required for a second time through the flatwork ironer. Laundry plants that have taken full advantage of these machines have increased their ironer production and have reduced their labor hours.

The maintenance of these tumblers is economical and simple because there are relatively few parts to care for. The machine consists of a perforated rotating cylinder and

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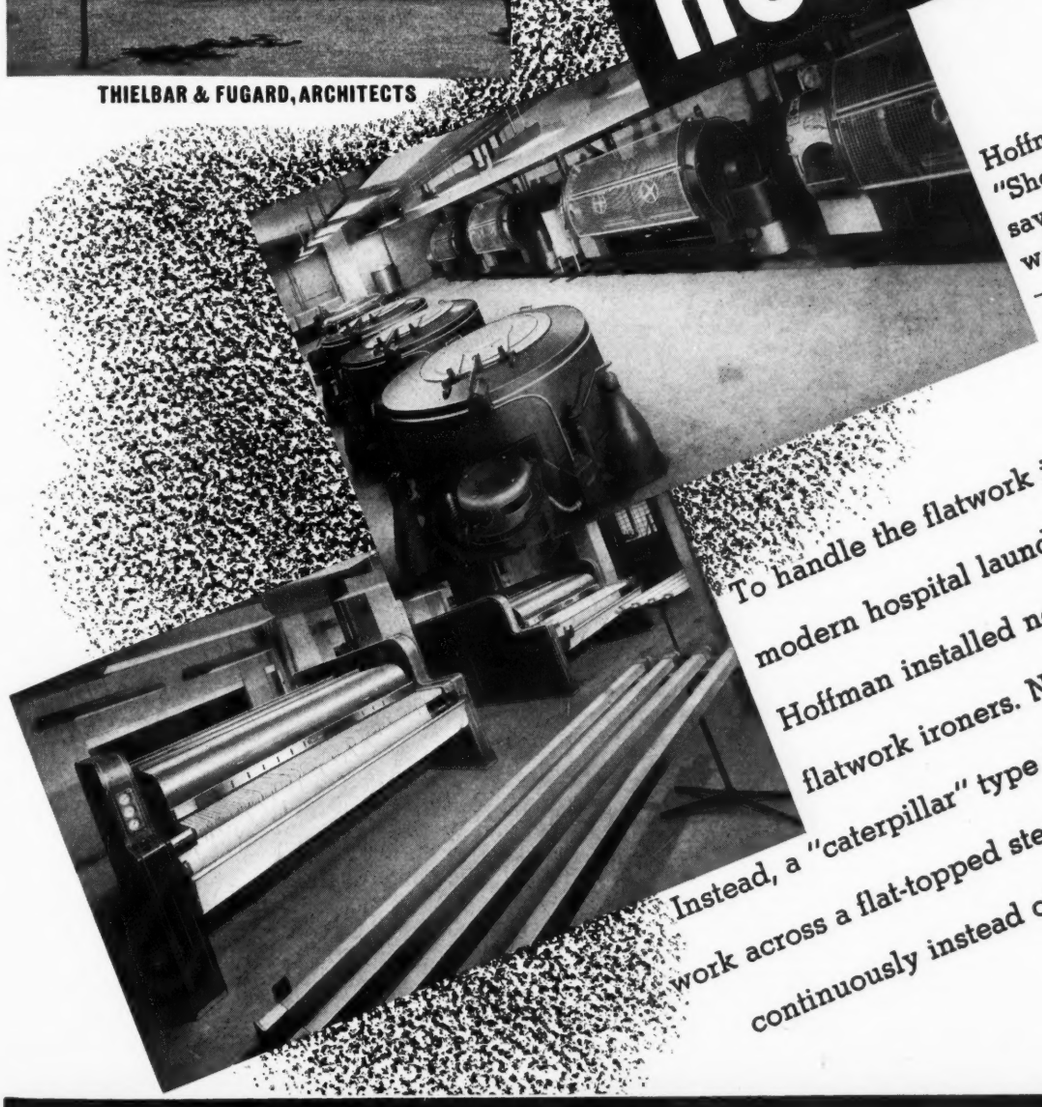

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To handle the flatwork in this ultra-modern hospital laundry Hoffman installed new "straight-line" flatwork ironers. NO ROLLS! Instead, a "caterpillar" type apron moves the work across a flat-topped steam chest. Dries continuously instead of intermittently.

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high-speed exhaust fan, both of which are operated by the same belt. Maintenance includes constant lubrication of fan bearings and cylinder shafts and cleaning of the lint box. It is imperative to follow the manufacturer's directions concerning the speed of the drive belt, since too slow a cylinder speed causes knotting and tangling of linens and too high a speed forces the fabric against the side of the cylinder, causing uneven drying and wrinkled linens. Proper speed picks up the linens, floats them through the air and drops them, completing the cycle.

Approximately 5 per cent of hospital laundry production is press work; however, this amount is equal to 15 per cent of the total cost of production. Pressing is ironing by pressure. The hot steam head of the press—whether operated by air, electricity or hand power—makes contact with the fabric on the buck, the enormous pressure smoothing the fabric. While hand ironing or flatwork finishing gives a higher quality of finish, pressing gives more firmness to the garment.

For institutional work it is important to select a type of press that will ensure an even flow of production and keep breakdowns at a minimum. Proper maintenance and padding of the presses are important for quality production. Steel wool makes the most resilient and generally the most satisfactory padding for these machines. Resiliency of padding is imperative to control the pressure on the garment, thus preventing any damage to the fabric.

Press operators must be trained systematically to change padding when necessary, to keep the inverted head of the press clean and polished at all times, to adjust pressure to conform with the weight of the material, to check steam traps for proper function and to report any unusual action of these machines to the laundry manager.

The flatwork ironer is the most expensive piece of equipment in the laundry; often it is the most neglected. Because it is constructed sturdily, this machine will give many years of service.

To keep the ironer working at its highest efficiency, operators must understand the importance of opening the inlet steam valve slightly to heat the steam chests slowly and to allow the steam condensation to be carried through the steam traps. Steam traps should be checked every morning to prevent warping of steam chests and costly replacements. Padding on the flatwork ironer must be changed whenever necessary to keep absorption and evaporation of moisture at the highest level.

Too, the ironing machine must be operated at a speed which will ensure that all steam chests are covered by an even flow of linens of the same weight; this gives the utmost in ironer production and prolongs the life of the padding. All ironer gears and bearings must be lubricated with the lubricant.

Pressure must be adjusted according to the type of work and released when the machine is stopped. Too much souring or improper rinsing sometimes causes linen to stick to the rolls; the problem may be solved temporarily by placing soapstone on the steam chests and by waxing the covers.

Today, the knowledge gained by the industry through years of research and experience is open to laundry managers and workers through technical schools, trade journals and associations; such technical study enables them to preserve and conserve the investment entrusted to their care.

Warehouse Handling Equipment

PROPER floor trucks and other handling equipment reduce labor costs, eliminate loss and waste of merchandise through excessive and improper handling and simplify warehousing, according to Harry Kusner, who is in charge of the new central warehouse at the Colorado State Hospital, Pueblo.

The hospital has completed a $2,300,000 improvement program which includes the $150,000 two story fireproof warehouse.

There are 200 skid platforms and two hydraulic jacks in use, which, according to Mr. Kusner, reduce the time of unloading a carload of merchandise by 75 per cent. Formerly, a day would be required to unload a car; now, the work is done easily in two hours.

The skid platforms are used for storing merchandise. These platforms keep the goods off the floor and facilitate rapid handling. There is only one handling from the loading dock to the spot in the warehouse where the merchandise is to be stored. If the goods are to be weighed, they go over the scales without the necessity for any additional handling.

Each morning orders from a dozen kitchens go to the warehouse. A skid platform on a foot lift truck, a wagon truck or a floor truck is used in filling each order. The order then is taken to the delivery truck on the loading dock. Since each order is handled on a separate skid, confusion is eliminated.

The ward service truck is used in the food distribution system from the central kitchen in the new north unit. There food for 10 cafeterias is prepared and is dispatched in food cars to the serving counters. The food train operates through tunnels that connect the various buildings. A battery engine pulls it. The ward service truck is equipped with proper couplings so that it can become a part of the train. It is an all-round device and usually hauls the odds and ends that cannot go into the regular food cars.

Plant Operation Questions

Fire Drills

Question: What are the duties of the hospital engineering department in case of fire or fire alarm? How often should fire drills be held?

ANSWER 1: The engineer becomes fire chief until the fire department arrives. He sees to it that the fire department has been notified and then that all his men are at their stations to help fight fire by use of hose and fire extinguishers. The personnel of the engineering department helps direct the removal of patients as much as possible.

Fire drills should be held three times a year at least and all personnel should know how to handle a fire extinguisher and should be able to tell the difference between soda and ash, foamite and pyrene extinguishers.—LELAND J. MAMER, *Evanston Hospital, Evanston, Ill.*

ANSWER 2: The hospital engineer is looked upon as the wonderman who can fix everything; by all means he should familiarize himself with the existing fire fighting equipment, its location and proper handling in an emergency. In a large plant regular fire drills should be held and the function and operation of the fire apparatus should be explained fully.—J. H. HERZOG, *St. Mary's Hospital, San Francisco.*

Economizer in Incinerator

Question: Is it economically feasible to use an economizer in the incinerator to heat water? Is it necessary to have auxiliary fuel in order to do this?

ANSWER 1: I believe it is not economical to use an economizer in the incinerator to heat water unless there is enough refuse to keep fire in the incinerator at all times. Each case should be studied before a definite decision can be reached. Usually, auxiliary fuel is necessary in order to keep the incinerator going, especially if it is the only means of heating water.—LELAND J. MAMER.

ANSWER 2: Although it is feasible to heat water by the use of an economizer in the incinerator, it cannot be considered practical because the operation of a hospital incinerator is intermittent and to use auxiliary fuel only to heat water would not be efficient.—J. H. HERZOG.

Heating Economy

Question: What is the most economical and efficient way to heat water?

ANSWER 1: The most economical and efficient way to heat water is by using all exhaust steam through a heat exchange and by using auxiliary high pressure steam entering through a reducing valve to make up for additional heat necessary whenever there may not be enough exhaust steam. If there is no exhaust steam available, the use of direct live steam through a heat exchanger or the use of a separate small hot water boiler of size necessary will take care of the demand. There is probably some question as to which of the latter two methods can be considered the more economical.—LELAND J. MAMER.

ANSWER 2: Heating water economically depends largely upon the size and location of the hospital. Small plants with seasonal heating periods could use regular gas fired hot water heaters located as close as possible to the center of distribution; if there are several small detached buildings each one should have its own hot water supply.

Large plants that use steam for general heating, for laundry, kitchen or sterilizers naturally would use steam for heating hot water. It is important to have ample storage capacity.—J. H. HERZOG.

Cleaning Grease Traps

Question: Can you get an outside firm to clean the grease traps in return for the grease that they contain? Is such arrangement satisfactory?

ANSWER 1: There are outside firms who clean grease traps and even pay for the amount reclaimed. Usually, the tallow works makes regular calls and collects the garbage from the kitchen and at the same time cleans the grease traps. However, arrangements of this kind depend greatly on the location of the hospital and the size of the plant.—J. H. HERZOG.

ANSWER 2: With the demand for grease what it is today, it is a simple matter to get an outside concern to clean the hospital grease traps in return for the grease recovered and in some cases the concern may even pay for the privilege.—W. W. DAVISON, *Passavant Memorial Hospital, Chicago.*

Nonskid Paints

Question: Are there nonskid paints on the market that are satisfactory for use in hospitals?

ANSWER 1: Yes. All large, reputable paint manufacturers have such paint but it is advisable to make individual tests to find out which paint is most suitable. Paints of this type are expensive.—LELAND J. MAMER.

ANSWER 2: The various paint manufacturers can advise and guarantee nonskid paints.—J. H. HERZOG.

ANSWER 3: Good floor paints, if kept clean, are not a slipping hazard; if they must be absolutely slipproof, an abrasive powder, such as emery or carborundum, can be added to the final coat or may be sprinkled on the floor while the final coat is still wet.—W. W. DAVISON.

Engineers' Question Box

Help out your fellow engineers and hospital plant workers by mailing in answers to one or more of the following questions. The best answers submitted will be published next month or in a later issue. Why not ask the advice of other engineers on any problem that is bothering you? Address your questions or answers to: Department of Plant Operation, The MODERN HOSPITAL, 919 North Michigan Avenue, Chicago.

6. **Who determines (and on what basis) how often elevator cables should be replaced?—R. E., N. Y.**
7. **How often should the various parts of elevator equipment be inspected by the hospital engineering department? By the insurance inspector? By city or state inspectors?—E. S. G., Colo.**
8. **With sponges now selling at about $15 a pound, would this be a good time to use wall-washing machines?—N. T., Mass.**
9. **Our city plumbing code requires that water used in the refrigerator condenser be wasted to the sewer. In other cities, I understand, hospitals use this water in a variety of ways. Our refrigerant is CO_2. Is there any real basis for this waste?—K. M., Ill.**
10. **What spots or equipment in the hospital ought to be protected by emergency light and power units? How does the war affect this problem in hospitals in coastal areas?—S. N., Calif.**

Centralized Service

As Developed at New Wesley

ELIZABETH H. TUFT
Executive Dietitian, Wesley Memorial Hospital, Chicago

THE dietary department in most hospitals is responsible for 25 to 35 per cent of the institutional expenditures. Several factors influencing this expense can be controlled if they are given consideration when the plans are being made. Labor costs, which constitute a large item in the dietary budget, will be reduced if the layout is arranged in such a way that the food will move forward in a straight line from the time is is received until it reaches the serving units and if all the equipment used by employes is conveniently located at the points of operation. Maintenance and repair costs will be lowered if quality equipment is selected and if only the products of reliable manufacturers are used. In planning the new Wesley Memorial Hospital, convenience, durability and upkeep were stressed in order that the operating costs might be kept low during the lifetime of the institution.

The hospital is a twenty story building consisting of a central shaft from which radiate four wings on all except the top five floors. In this central shaft are located the elevators and the food lifts. The space between the two wings at the back of the building was enclosed on the first and second floors to provide room for the dietary department. In addition, the two adjoining wings on the second floor were designated for dining rooms; an office, located on the first floor near the other administrative offices, was assigned to the executive dietitian.

The space on the first floor is divided between a dietary storeroom containing three walk-in refrigerators and a room equipped for the preparation of fruits and vegetables. Since the receiving room adjoins the storeroom and the incinerator is near, this arrangement provides for the

Photos, Chicago Architectural Photo Co.

Above: Stock kettles and cereal cookers, shown on either side of the steamers, are made of aluminum and are jacketed. The potwashing unit is shown in the background. Left: Cold food and dishes are placed on trays from one side and hot food and dishes, from the other. This conveyor serves ward patients from the fifth up to the tenth floors.

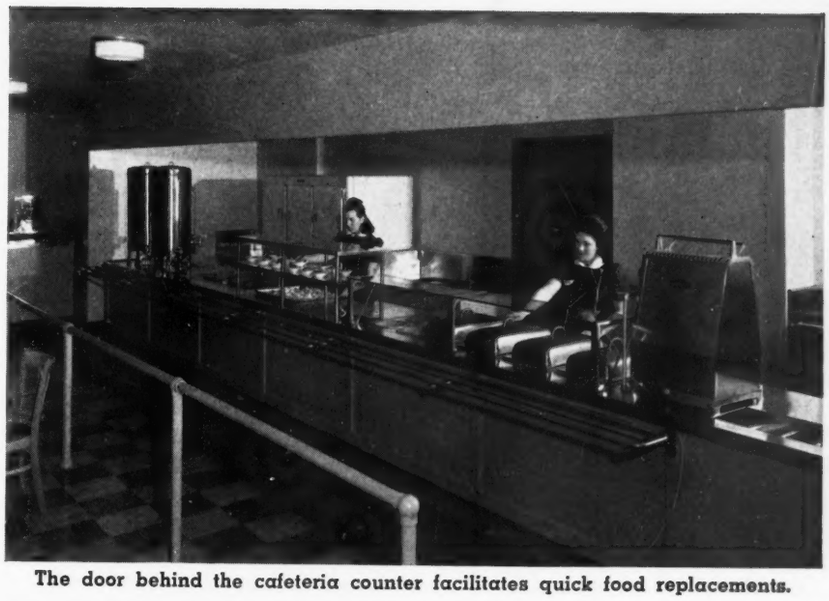
disposal of preparation waste with a minimum of handling. The storeroom is connected with the kitchen above by means of a food lift operating between the two floors and a service elevator running to the basement where the general storeroom is located.

The kitchen is fan-shaped with three food lifts and two tray conveyors located in what would be the handle of the fan. Converging at this section are three conveyor belts: the central one for serving the ward trays, the right one for serving the private trays and the left one for carrying the returned trays to the dishwashing room. A wide aisle separates this conveyor area from the production units and the pot room. These units are arranged along the outer margin of the kitchen. Between the ward and private belts are located a glass-enclosed office and a communication room for receiving and transmitting messages; this room is supplied with pneumatic tubes, a telephone and an amplifying system with outlets in various parts of the kitchen and in the unloading stations on the floors above.

The kitchen has glass brick windows, soundproof ceiling, red quarry tile floor, fluorescent lighting and walls of buff terra cotta, oatmeal-finish. Except for the bake shop and the dishwashing room, which have walls extending to the ceiling, the units are separated by low partitions. The tables, sinks and cabinets are constructed of polished, stainless steel. Lavatories are located in each unit.

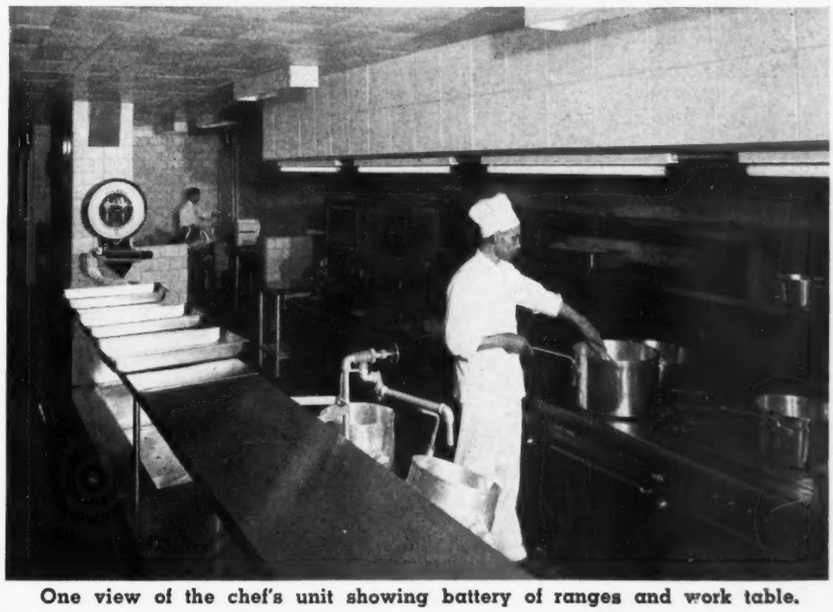
The ward and private sections are similar in arrangement, but the private unit has equipment for preparing short orders and food for special diets. Also, the private trays are transported on high speed food lifts because they are sent to rooms on the tenth to sixteenth floors while the ward trays are carried by a tray conveyor to serve patients on the fifth to tenth floors.

After the food has been served, the empty trays are placed on the end of the belt, which travels at the rate of 15 feet per second. The cold food and dishes are put on the conveyor from one side and the hot food and dishes from the other side. The food is kept hot in electrically heated panels, which are thermostatically controlled and which are adjustable



The door behind the cafeteria counter facilitates quick food replacements.

The guests' dining room shows exquisite taste in furnishings and decoration.



One view of the chef's unit showing battery of ranges and work table.

for different temperatures. Next to each food section are wells equipped with counterpoised springs that release slowly as the weight of the dishes is decreased. This device keeps the stack of dishes level with the table top, eliminating the time and effort required to stoop or to reach for dishes.

The bake shop contains, in addition to the tables and work bench, a two deck electric oven with steam attachment, a portable electric fry kettle, a one compartment steamer and an 80 quart mixer. The ice cream section, located at one end of the bake shop, is equipped with a 5 gallon freezer and an ice cream storage and dispensing cabinet. Besides the six door, reach-in baker's refrigerator, there is a walk-in box with an inner compartment that can be maintained at a subzero temperature. The outer refrigerator is used for chilling desserts and for holding some of the unbaked goods; the inner section is used for the storage of frozen fruits.

The chef's unit is equipped with a battery of four gas ranges with thermostatically controlled ovens, two fry kettles and two ceramic broilers. The work table contains a bain-marie, also thermostatically controlled, and four 2½ gallon trunion type of steam jacketed kettles. The purpose of these kettles is to eliminate some of the range top cooking and to provide a means for cooking sauces and certain vegetables in small quantities. Behind the ranges and under the stainless metal canopy are two three-compartment steamers and two 60 gallon steam jacketed kettles.

At the end of the chef's table near the butcher shop are located the food chopper and the 80 quart mixer. Two reach-in chef's refrigerators and a walk-in box with freezing compartment similar to that in the bake shop are adjacent to the butcher, dairy and salad refrigerators.

The tables of the dishwashing room are built parallel to the horizontal belt on which the trays travel after they have been automatically unloaded from the descending tray conveyor. Glassware is removed from one side of the belt, placed in racks and pushed toward the glasswasher, which is of the brush type.

Dishes and silver taken from the other side of the belt may be moved in either direction along the continuous top table toward the dishwashing machine where they are placed on the fiber belt that carries them through the three tank machine. They are spread to dry on a mat designed for the hospital of formica strips held together by brass rods. As this material is impervious to the action of moisture and heat, the sections may be cleaned by sending them through the dishwasher.

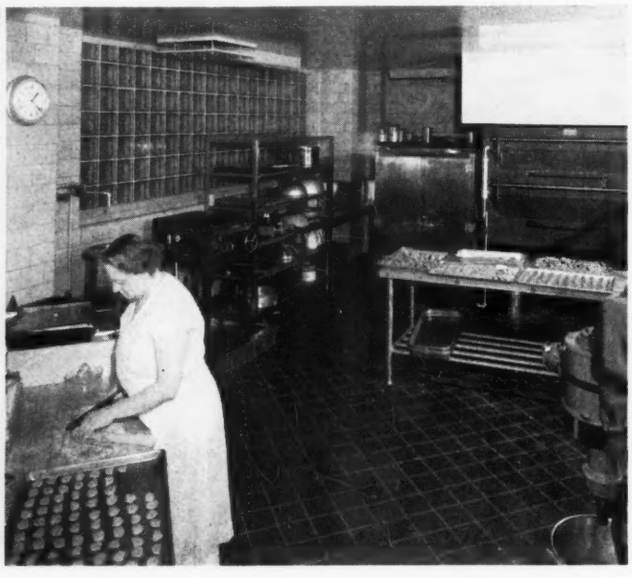
Dishes from the adjoining cafeteria and from the dining rooms are brought to the dishwashing room on carts. Glasses are placed on a roller conveyor, which carries them under the table to the glasswasher at the other side of the room. This conveyor not only acts as a medium of transportation but also provides a space for storing the glasses until the operator has time to wash them.

Even though there are six dining rooms for personnel and guests, all of the food is distributed from three serving units. The counter in the general cafeteria serves the cafeteria patrons and also supplies the food for the adjoining dining room for hospital executives and heads of departments. A door opening into the kitchen from behind the counter makes it possible to obtain food replacements quickly.

The serving room, located between the interns' dining room and the dietary employes' dining room, contains a cafeteria counter for serving each group. The employes have self-service at all meals; the interns have self-service for breakfast and table service for luncheon and dinner. The serving room for doctors and guests is situated between these two dining rooms, directly across the hall from the short order unit.

It will be noted that the entire plan of the department was built around the food service to the patients. Centralized service was used because it offers a better opportunity for close supervision than would be possible with distribution centers on the 11 patients' floors. Supervision is an important consideration because the hospital, in line with the policy of the last four years, offers a selective menu to ward as well as to private patients.

Close-up of the dishwashing machine. The belt extends 30 inches, allowing dishes to cool before being handled.



Making cookies for Wesley's open house. The electric oven in the background is automatic with tile decks.

SWIFT'S PREMIUM HAMBURGER PATTIES

Delicious all-beef hamburger ... in a new, ready-to-use style!

Now—hamburger that gets hurrahs! Both staff and patients will enjoy the juicy tenderness and fine flavor of Swift's Premium Hamburger Patties. They're good *every time* because they are made *only from top-quality, Government inspected* beef . . . carefully ground . . . and quick-frozen.

These economical patties are ideal any way they're served—in sandwiches . . . as a main meat course. They can be baked, fried or broiled—*without preliminary defrosting.* They're identical in size—come packed 8 or 16 to the pound. You can order exactly the number you need . . . figure portion costs right down to the fraction of a cent.

Many hospitals and other institutions are finding Swift's Premium Hamburger Patties an excellent way to simplify buying . . . to get the truly good meat that wins all-around approval. Try Swift's Premium Hamburger Patties. Ask your Swift salesman, or write to

SWIFT & COMPANY
Hotel Contract and Institution Dept.
CHICAGO

1-ounce or 2-ounce patties—packed quick-frozen in convenient 9 and 18-pound containers. Special arrangements can be made to supply patties of other sizes.

FOR DELICIOUS SANDWICHES

FOR APPETIZING LUNCHES, DINNERS

Martha Logan SUGGESTS BAKED HAMBURGER PATTIES

Place Swift's Premium Hamburgers without defrosting into a dry baking pan. Then, bake them for ten minutes in a 450° oven. That's all! You get juicy, delicious hamburgers. This method is ideal in the preparation of large quantities, as no turning is required.

Enriched Bread—Why and When?

DOROTHY De HART

Dietitian, Roosevelt Hospital, New York City

THE government has had brought home to it in no uncertain terms the extent to which malnutrition exists in the United States. This was demonstrated when selectees were examined for the Army. Realizing that good nutrition is important in defense, federal and scientific agencies were asked to consider the nutritional problems of the nation and to make recommendations.

When Stiebling and Phipard of the U. S. Department of Agriculture examined the diets of some 4000 wage earning families throughout the country, they estimated that not less than one third of our entire population was getting inadequate diets. Over a period of time diets below the necessary standards fail to maintain health. While it is true that most of the poor diets are found in the lower income groups, inadequate diets also extend into the highest income group. This was found to be due to poor food selections, special diets and lack of knowledge as to what should be eaten.

The most prevalent deficiencies in this country today are those due to the lack of members of the vitamin B complex and of iron. In the B complex, the three most important factors from the standpoint of health are thiamin, riboflavin and nicotinic acid. It is not surprising, therefore, since these three factors usually are present in the same foods, to find an individual with symptoms of two or all three deficiencies at the same time. Since a deficient diet is due to the absence of natural foods containing these vitamins and also to the usual lack of other factors, it is necessary to supply vitamins and minerals.

The National Research Council's committee on food and nutrition was organized at the request of the government. Under the chairmanship of Dr. Russell M. Wilder, the committee, with such prominent members as Dr. N. Jolliffe, Dr. T. D. Spies, Dr. C. A. Elvehjem, Dr. E. M. Nelson, Dr. R. R. Williams and Dr. W. H. Sebrell, has studied and will be studying many important groups of food and their contributions to an adequate diet. The committee recognized that wheat flour and its products demanded consideration before any other class of food, if for no other reason than that wheat flour and its products today contribute more calories to the American diet than any other class of food.

From the dawn of civilization bread has been man's "stand-by," his cheapest food. Great battles have been waged about it and it has played a vital part in great historical movements. Nations of lower standards have struggled and continue to struggle for the inclusion of wheat in their diets.

What with white flour, refined sugar and highly refined fat, more than half of an individual's average daily caloric consumption is made up of refined foods. During the past century the American millers have responded to the ever increasing demands for refinements, for greater whiteness of their products and for those characteristics that lend themselves to the best and most economical use in the machine processes of bread making. The baker has aimed at making his industry the model of sanitation and efficiency. He has found new ways of preserving freshness and utilized every device possible to bring the products to the buyer under the most favorable conditions.

Thus, until the public demand for food rests on a nutritional as well as on an esthetic basis, it seems advisable either to change the milling procedure or to add vitamins and minerals to the flour. The nutritional values of wheat lie largely in the outer layers, rich in vitamins and minerals. The roller mill process in the manufacture of wheat flour removes in one stroke about 50 per cent of the thiamin from the average American dietary. The endosperm contains about 0.15 international units of thiamin per gram. Patent flour contains even less than this amount.

A portion of the thiamin in bread is derived from the yeast and from such concentrated milk products as may be used in the formula. Yet, considering this, white bread is only about one tenth as potent in thiamin as is whole wheat. The milling process removes from white flour one third of the calcium, two thirds of the iron, three fourths of the copper, three fourths of B_1 and almost all the magnesium and manganese.

One well-known miller has developed a method of flour extraction by which the flour retains the whole wheat level of thiamin. Additions of riboflavin, iron and calcium are made to bring these to the whole wheat level. This improved flour is wheaten flavored and is not as white as the patented flour.

The additions of thiamin-rich foods, such as wheat germ, is not an ideal solution because wheat germ must be treated to destroy oxidative and liquefying enzymes. Furthermore, it is necessary that a high percentage of wheat germ be added, for the germ contains only one fifth of the thiamin of the wheat berry and it is expensive.

Another method of obtaining the vitamins is by using a high vitamin yeast in making bread. This has

Suggested Specifications for Flour

Required Ingredients	*Adult Daily Requirement*	*Whole Wheat Bread per Pound*	*Enriched Bread per Pound*
Thiamin	1⅔—2 mg.	1.35—1.65	1.0— 2.0 mg.
Nicotinic Acid	20	9.0—12.0	4.0— 8.0 mg.
Iron	12—15 mg.	12.0—15.0	4.0—16.0 mg.
Optional Ingredients:			
Riboflavin	1—3 mg.		0.8— 1.6 mg.
Calcium	680—800 mg.		300.0—1200.0 mg.
Phosphorus			
Vitamin D	400—800 I.U. (when not available from sunshine)		150.0—600.0 I.U.

For The Average Woman

Dole Pineapple Juice is a good source of Thiamin and Ascorbic Acid

Authoritative analyses and assays accepted by the Council on Foods and Nutrition of the American Medical Association show that a 6-oz. serving of Dole Pineapple Juice (approximately 100 calories) contains 240 I. U. of Vitamin C (Ascorbic Acid) and 100 I. U. of Vitamin B_1 (Thiamin).

Notice the chart below. It indicates what Dole Pineapple Juice contributes to the daily allowances for specific nutrients recommended by the Committee on Food and Nutrition of the National Research Council. The left-hand column gives recommended amounts. The right-hand column represents the percentage of the recommendations found in a 6-oz. serving of Dole Pineapple Juice.

Dole Pineapple Juice is also a good source of Vitamins B_1 and C for men and children. It is tempting to healthy appetites and easily assimilated. It is the true, undiluted juice of sun-ripened pineapples and a satisfactory addition to the fruit juice diet.

Percentage contributed to daily recommendations by a 6-oz. serving of Dole Pineapple Juice	THIAMIN B_1		ASCORBIC ACID C	
	Rec. N.R.C. Mgs.	DOLE	Rec. N.R.C. Mgs.	DOLE
Moderately Active	1.5	20%	70.	17%
Very Active	1.8	17%	70.	17%
Sedentary	1.2	25%	70.	17%
Pregnancy	1.8	17%	100.	12%
Lactation	2.3	13%	150.	8%

DOLE Hawaiian Pineapple Juice FROM HAWAII U. S. A.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

proved to be successful, since the whiteness of bread is not altered.

There are already on the market patented flours that have been enriched with synthetic thiamin. This appears to be the best way (aside from special methods of milling, which saves the vitamins and minerals) in which thiamin enrichment can be accomplished without altering the taste or color of white flour, but they are still costly. The public should be taught that color in foods usually implies better nutritive value.

In January 1941 the National Research Council released its recommendation of enriched flour and enriched bread and the industries agreed to start production without delay. Within a few months it is expected that the Food and Drug Administration will give out official definitions and standards.

The aim in restorative fortification of foods is not to reach some hypothetical goal. It is to provide dietary essentials that people must get from their foods in order to maintain good health.

The plan is to add to white flour minerals and vitamins sufficient to make it equivalent to the levels of whole wheat flour. The restored flour is not supposed to be superior or even nutritionally equal to the whole grain flour.

The riboflavin in a specified amount has been made optional preceding receipt of assurance that an adequate supply has become available. The calcium, phosphorus and vitamin D may also be added at the option of the miller or baker, with prescribed limitations.

There are some uncontrollable factors that may vary the constituents of bread. Whole wheat bread varies greatly because the grain varies with the locality, soil and weather conditions. Hard spring wheat contains more thiamin than soft winter wheat. In baking a slight loss of thiamin, perhaps from 10 to 15 per cent, may occur largely in the crust. This has been taken into account in the amounts of this vitamin included in enriched flour and enriched yeast. Ordinary toasting may also cause a 10 to 15 per cent thiamin loss.

Enriching the bread is just one effort that is directed toward retaining in products the values of the natural foods from which they are made. The cost of the vitamin improvement is estimated at about one fourth cent per pound of flour and less than one fifth cent in the bread per pound.

One should not feel that he is obtaining an adequate supply of these minerals and vitamins even by eating the enriched bread, for six slices of enriched bread a day equals only a little more than one sixth of the daily requirement of B_1.

RECIPES BY REQUEST

Scotch Broth

(Forty Servings)

1 cup barley
4 quarts water
4 pounds lean mutton
1 cup onions, diced
1 cup carrots, diced
1 cup turnip, diced
½ cup celery, chopped
2 tablespoons parsley, chopped
2 tablespoons butter
Flour to thicken

Soak barley overnight. Cut mutton in small pieces, add water and soak one hour. Heat slowly, skim, add barley and skim again. Simmer one hour. Add onions, carrots, turnip and celery, fried for five minutes in butter. Simmer three hours, season well and thicken with a little flour. Add parsley and serve.

•

Chicken Timbales With Parsley Sauce

(Seventy-Five Servings)

1⅞ cups butter
3¾ cups stale bread crumbs
2½ quarts milk
3¾ quarts cooked chicken, chopped
30 eggs

Melt butter, add bread crumbs and milk. Cook five minutes, stirring constantly. Add chicken and eggs, slightly beaten. Fill buttered molds two thirds full. Set in pan of hot water and bake twenty minutes. Serve with cream sauce to which chopped parsley has been added.

•

Biscuit Meat Roll

(Fifty Servings)

1½ quarts flour
1½ tablespoons baking powder
1½ teaspoons salt
2/3 cup sugar
1½ cups lard
Milk, as needed

Mix biscuit dough and roll about ¼ inch thick into rectangular shape.

8 pounds hamburger
4 pounds ground pork

Season as desired and brown in hot fat, reserving any stock for gravy. Spread drained meat in thin layer on dough and roll like jelly roll. Cut in slices about ¾ inch thick. Bake fifteen to twenty minutes. Serve with gravy made from meat stock.

•

Corned Beef Hash de Luxe

(Sixty-Four Servings)

3 quarts brisket corned beef, boiled
3 quarts potatoes, cooked
1 quart cream
2 tablespoons onion juice
½ teaspoon pepper
Salt to taste

Cover chopped potatoes with hot cream and let soak for a few minutes. Add chopped corned beef, mix and season with onion juice, pepper and salt, if necessary. Spread on a flat pan about 1½ inches deep and bake in a medium oven for fifteen or twenty minutes.

•

Corn Muffins

(Fifteen Dozen)

3⅞ pounds sugar
2½ pounds shortening
1 ounce salt
25 eggs
2 quarts milk
2 ounces soda
4½ pounds cornmeal
4½ pounds pastry flour
4 ounces cream of tartar

Cream shortening, sugar and eggs. Add salt and milk in which soda has been dissolved. Add cornmeal, flour and cream of tartar. Bake in muffin tins in moderate oven (350° F.).

•

Tuna Chow Mein

(Fifty Servings)

9 12-ounce cans tuna
5 large onions
3½ quarts celery, chopped
3 pounds mushrooms
½ No. 10 can bean sprouts
1 cup flour
1 bottle Soy sauce
4 quarts meat stock

Thicken gravy stock with flour. Brown mushrooms. Cook celery and combine the onions, celery, mushrooms, sauce, bean sprouts and stock. Add tuna and serve on Chinese noodles.

The Newer Concepts of Meat in Nutrition

Meat...
and the Diet in Infectious Disease

INTENSIFIED protein metabolism, characterized by increased nitrogen excretion and a tendency toward negative nitrogen balance, invariably accompanies infectious disease. The severity of the process parallels, in general, the degree of pyrexia, but it usually persists for several days after the temperature returns to normal.

If tissue destruction secondary to excessive nitrogen catabolism is to be prevented during the course of infectious diseases, the protein intake must be increased sufficiently to maintain nitrogen equilibrium.

It has been shown that tissue wastage can be minimized through the influence of a diet rich in proteins and high in caloric value.[1] Perla and Marmorston[2] recommend 2 grams or more of proteins as well as 50 or more calories per kilogram of body weight daily in order to lessen or prevent destruction of body proteins.

Meat, a rich source of all the essential amino acids, is especially suitable for such diets. Of added advantage are its significant amounts of thiamine, riboflavin, nicotinic acid, and of the essential minerals iron, copper, and phosphorus. Its easy digestibility and stimulating influence on gastric secretion help to increase the food consumption of the patient.

1. Coleman, W., and Du Bois, E. F.: Clinical Colorimetry. VII Colorimetric Observations on the Metabolism of Typhoid Patients With or Without Food, Arch. Int. Med. *15*:887, 1915.
2. Perla, David, and Marmorston, Jessie: Natural Resistance and Clinical Medicine, Boston: Little Brown & Co., 1941.

The Seal of Acceptance denotes that the statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

American Meat Institute
CHICAGO

February Dinner Menus for the Small Hospital

Hedwig Rausch

Dietitian, Dixon Public Hospital, Dixon, Ill.

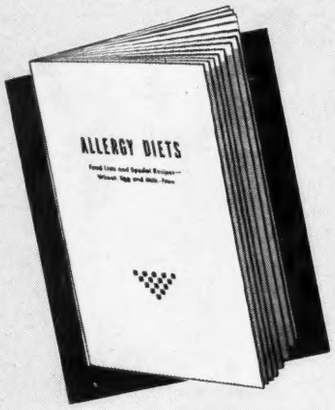
Day	Soup or Appetizer	Meat or Fish	Potatoes or Substitute	Vegetable	Salad or Relish	Dessert
1.	Pear Juice	Meat Loaf	Creamed Potatoes	Julienne Carrots	Pineapple and Sweet Relish Salad	Baked Custard
2.	Fruit Cup	Broiled Spring Chicken	Mashed Potatoes	Frozen Asparagus	Gingerale Fruit Salad	Ice Cream
3.	Vegetable Soup	Roast Beef	Browned Potatoes	Creamed Peas	Peach and Prune Salad	Bread Pudding
4.	Bouillon	Shirred Liver	Mashed Potatoes	Stewed Tomatoes	Lettuce, Thousand Island Dressing	Pineapple and Cookies
5.	Rice Soup	Baked Tomato	Mashed Potatoes	Julienne Carrots	Pea and Cheese Salad	Ice Cream
6.	Cranberry Juice Cocktail	Baked Fillet of Perch	Parsley-Buttered Potatoes	Buttered Spinach	Julienne Vegetable Salad	Fruit Cup
7.	Consommé	Roast Veal	Browned Potatoes	Buttered Wax Beans	Mixed Fruit Salad	Cottage Pudding
8.	Essence of Tomato	Lamb Chops	Escalloped Potatoes	Buttered Peas	Mint Jelly	Fruit Sherbet
9.	Jellied Bouillon	Broiled Sirloin	Mashed Potatoes	Buttered Beets	Lettuce, Mayonnaise	Frosted Strawberries
10.	Tomato Juice	Veal Birds	Potato Puff	Buttered Baby Limas	Apple Ring Salad	Peanut Crunch
11.	Cranberry Relish	Vegetable Beef Stew	Boiled Potatoes		Carrot and Raisin Salad	Ice Cream
12.	Bouillon	Shirred Liver	Escalloped Potatoes	Creamed Wax Beans	Endive, French Dressing	Coconut Custard
13.	Consommé	Baked Halibut	Buttered Noodles	Green Beans	Lettuce, French Dressing	Fruit Cup
14.	Cherry Juice	Baked Ham	Candied Yams	Buttered Beets	Mixed Fruit Salad	Valentine Ice Cream
15.	Broth	Roast Beef	Browned Potatoes	Buttered Baby Limas	Celery Cabbage	Baked Apple With Cream
16.	Cream of Asparagus Soup	Baked Veal Cutlets	Mashed Potatoes	Buttered Broccoli	Peach and Prune Salad	Ice Cream
17.	Spiced Applesauce	Meat Loaf	Baked Potatoes	Buttered Spinach	Carrot Sticks, Celery Curls	Gelatin, Whipped Cream
18.	Grapefruit Juice	Salmon Loaf	Creamed Potatoes	Frozen Peas	Pineapple Gelatin Salad	Cup Cakes
19.	Rice Soup	Roast Veal	Browned Potatoes	Julienne Carrots	Peach and Coconut Salad	Bread Pudding
20.	Grapefruit Cocktail	Fillet of Red Snapper	Creamed Potatoes	Buttered Asparagus	Spiced Apple	Sherbet
21.	Fresh Fruit Cup	Country Fried Chicken	Mashed Potatoes	Frosted Corn	Spiced Apricots	Ice Cream
22.	Mint Jelly	Roast Leg of Lamb	Parsley Potatoes	Buttered Beets	Celery Curls	Cherry Pudding
23.	Pineapple Juice	Oyster Patties	Creamed Potatoes	Buttered Green Beans	Lettuce, Mayonnaise	Fruit Gelatin
24.	Chicken Bouillon	Swiss Steak	Mashed Potatoes	Stewed Tomatoes	Julienne Vegetable Salad	Ice Cream
25.	Cream of Celery Soup	Hot Tuna	Baked Potatoes	Buttered Asparagus Tips	Orange and Coconut Salad	Pineapple Sundae
26.	Essence of Tomato	Baked Veal Chops	Potato Puff	Creamed Baby Limas	Lettuce, Thousand Island Dressing	Canned Grapefruit
27.	Fresh Grapefruit Juice	Fillet of Perch	Creamed Potatoes	Whole Kernel Corn	Peach and Prune Salad	Tapioca-Fruit Pudding
28.	Broth	Roast Beef	Browned Potatoes	Buttered Peas	Chopped Raw Vegetable Salad	Norwegian Plum Pudding

Recipes will be supplied on request by The MODERN HOSPITAL, Chicago.

DELICIOUS WHOLE GRAIN BREAD
helps solve 3 common diet problems

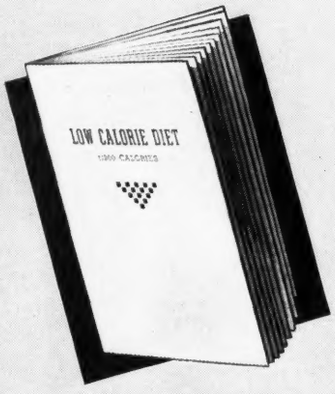
FOR GOOD NUTRITION

Ry-Krisp is an out-and-out whole grain bread—delicious, convenient, wholesome. 7 International Units vitamin B_1 per 6.5 gram wafer. Good source of iron, copper, phosphorus, manganese. Analysis, samples free on request.



FOR ALLERGY SUFFERERS

Ry-Krisp is a *safe* bread—no wheat, milk or eggs. Handy Allergy Diets list allowed and forbidden foods, give tested recipes for wheat, milk and egg-free diets. Supply of Diet books free on request.



FOR NORMALLY OVERWEIGHT

Dietetically sound Ry-Krisp low-calorie diets—1200 calories for women, 1700 for men—free on request. Ry-Krisp is indicated as bread in these low-calorie diets because it has only 23 calories per wafer yet has a high hunger-satisfying value.

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Employe Schedules

MILDRED L. BURT
Executive Housekeeper
Mountainside Hospital, Montclair, N. J.

IT IS a tremendous task to make out schedules to fit all the types of workers in the housekeeping department. In many cases these schedules must be made individually to fit the particular section or the worker involved. Then again, of course, there are groups of maids or porters that have similar duties, such as on the various floors of the nurses' home; one set of schedules can be made for all these workers.

We find no great difficulty keeping our building service employes on regular schedules, although occasionally the schedules have to be abandoned when something unexpected arises.

At intervals the schedules must be rewritten to keep them in harmony with changing conditions in the hospital. Last July, for instance, when the hospital went on an eight hour schedule for employes in this class of service our old schedules were no longer applicable and new ones had to be made.

Regardless of the amount of work involved, I feel that schedules should be worked out for each worker in the hospital building service. Each maid and porter should have a copy of the schedule posted inside the service closet and the housekeeper should have on her desk a book (looseleaf, preferably) containing copies of all schedules. The head nurse on each floor and the house mother in the nurses' home each should have a copy of the schedule for her particular maid or porter.

Our schedules were worked out originally to show the order of work (job analyses) and had no time limits attached. Gradually, as the schedules were tried out, some satisfactorily and others unsatisfactorily, I rewrote them, including the time in which the work should be completed. These schedules are not made out in great detail but the time limits are designed to guide the porter in his work.

(*Continued on page* 94)

SAMPLE WORK SCHEDULES

Maid

Hours: Daily—8-12, 1-5.
Sunday—7:30-12, 12:30-4.

8-9 a.m.—General cleaning as follows:
Middle room in study hall.
Office 131, 133 (Director of Nurses and Sec.).
Office 120, 121 (Instructors).
Office front entrance.
Libraries 132, 134 and bath between.

9-9:30 a.m.—Living room and reception room.

9:30-10 a.m.—Bedrooms 102-3, 108: Make beds and care for.
Bedroom 106: Change linen daily and care for.
Bedrooms 115, 117, 118, 119: Care for, make beds except for preliminaries.

10-10:15 a.m.—Put away food supplies.

10:15-11 a.m.—Lunch for students put out at 10:15; take away at 10:45. Special work.*

11-12 a.m.—Bath (small, 105) clean.
Room 104: Make bed and care for room.

1-1:30 p.m.—Kitchen.

1:30-5 p.m.—Monday, tea.
Tuesday, off.
Wednesday, uniforms and special work assigned.
Thursday, tea.
Friday and Saturday, extra cleaning in nurses' rooms; tending phone alternately all day in addition to other work.
*Monday: Check and count clean torn linen.
Wednesday: Check supplies.
Thursday: Check and count soiled torn linen and extras going to laundry.

Notes: Buff corridors daily as needed and mop corridors from suite 102 to living room, as is needed.

Answer telephone and doorbell in absence of house mother.

Assist house mother in responsibility for all incoming linen from laundry and sewing room; also for food supplies.

Maternity Porter

Hours: 7:30-12, 1-4:30, Thursday off.

7:30-8:30 a.m.—Collect waste from maternity and emergency wards; put away sterile supplies.

8:30-8:35 a.m.—Take drug basket to pharmacy.

8:35-8:45 a.m.—Sweep porch.

8:45-8:50 a.m.—Clean nurses' station.

8:50-10 a.m.—Sweep and mop rooms in maternity as soon as patient care is completed in examination room 209, isolation room 210, isolation nursery 211, linen closets, wards 208, 212, 224.

10-10:30 a.m.—Clean nursery, empty linen hampers and take to laundry, empty trash (wear mask and gown in nursery).

10:30-11 a.m.—Sweep and mop corridors.

11-11:15 a.m.—Clean toilet in maternity, 207 and basin near by; clean tile near basin.

11:15-11:45 a.m.—Brush up, mop and set to rights service rooms 204, 226, 234.

11:45-12 a.m.—Pick up flower closet 235; polish corridors, if needed.

1-1:15 p.m.—Collect trash.

1:15-1:30 p.m.—Scrub top of table in service room 204.

1:30-2 p.m.—Damp mop window sills throughout department, inside windows, white paint (except in E.W.).

2-2:45 p.m.—Mop pantry, necessary cleaning in pantry.

2:45-3 p.m.—Collect and empty trash; empty linen hampers.

3-3:15 p.m.—Brasses.

3:15-4:15 p.m.—Special cleaning for the day (see below).

4:15-4:30 p.m.—Mop corridors and service rooms.

Plan for special cleaning (3:15-4:15 p.m.).

Monday: Toilets in maternity 207, including tiles; flower closet.

Tuesday: Wash porch with hose and deckbrush. Service rooms, 204, 226, 234.

Wednesday: Pantry—tile, lights, window screens, brasses, ice receptacles, drain in ice chest.

Thursday: Off.

Friday: Wash porch—hose or deckbrush. Substitute in M.P.C.

Saturday: Scrub sterilizers, inside and out (2 bedpan, 2 instrument, 2 large).

Dedicated *to* Health

ELKAY "STURDIBILT" STAINLESS STEEL EQUIPMENT MAKES ITS CONTRIBUTION TO PUBLIC HEALTH AND SAFETY

For many years ELKAY "Sturdibilt" Stainless Steel Cabinet Sinks and Tops have been the preferred equipment in leading hospitals, institutions, industrial plants, schools and homes. The smooth, acid, stain and rust resisting stainless steel surfaces give the utmost in sanitary protection, while ELKAY'S electrically welded and heavily reinforced construction assures a lifetime of service. Every ELKAY "Sturdibilt" unit is custom built to meet individual requirements and specifications. Specify ELKAY "Sturdibilt" for both new and modernization projects.

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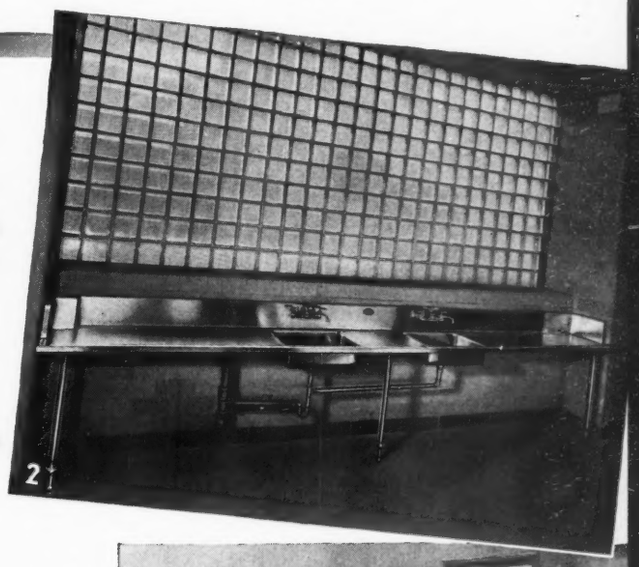
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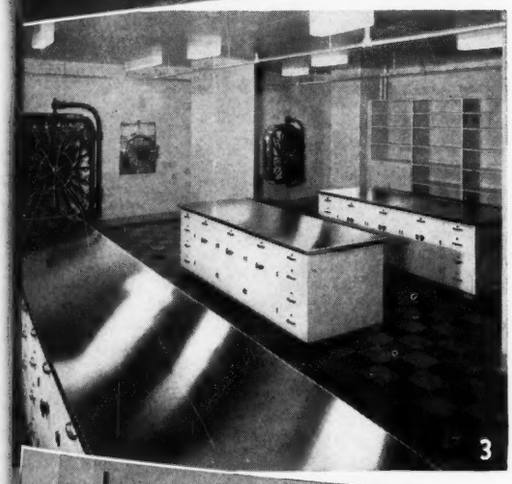
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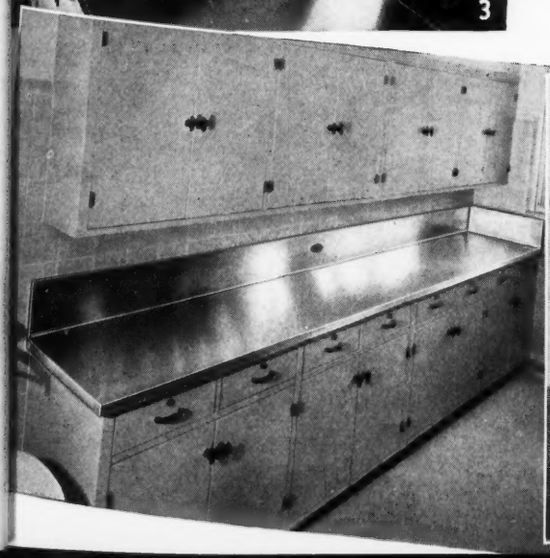
1 Hydro-Therapy Tank 6 x 10 x 4 ft. deep.
2 16 ft. Sink in Central Service Supply room.
3 Cabinet Tops in Central Service Supply Room.
4 Sink and Work Table in Surgical Instrument and Preparation Room.
5 Cabinet Top in one of the Work Rooms.
6 Sink in Medicine Cabinet at Nurses' Service Center.
7 Cabinet Sink Top in one of the Work Rooms.

4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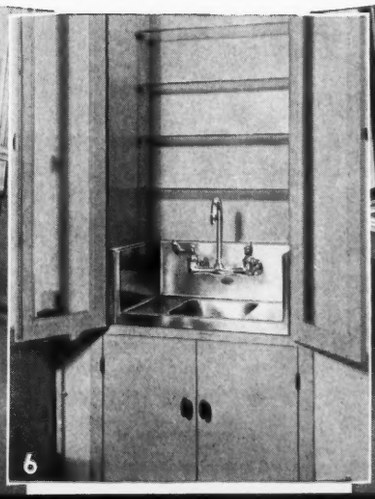
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(*Continued from page* 92)

In working out schedules, I have found it advantageous to consult the employe concerned because he, himself, can ascertain how long it will take him to complete a piece of work, on the average, and having committed himself he has a certain pride in keeping within that limit.

I do not expect the workers to follow the time schedule rigidly. After all, when a porter is located on a hospital floor and is subject to call by head nurses or others or when he works in the nurses' home and is subject to unexpected demands, it is not always possible to maintain the schedule absolutely. However, if he works by a time schedule the employe will come closer to finishing his tasks at the appointed time than if he does not have one; it serves to remind him of the work to be done and acts as a guide for new employes or substitutes.

Cooperation Cuts Waste

COOPERATION between department heads and department employes will help greatly in reducing waste, according to Freda Gollombek, executive housekeeper, Jewish Hospital, Brooklyn, N. Y.

"We have had some success in reducing the quantities of detergents, wax and strong cleaning agents in the general housekeeping program," she states, "through closer coordination with the supervisors of other departments to control the activities of their personnel.

"By establishing a rigid, closely supervised routine of cleaning of all furnishings, the use of strong agents for the accumulated dirt was eliminated. A partial success, not particularly striking at this moment, was attained in the reduction of the number of mattresses for reconditioning. This was accomplished through the cooperation of the nursing personnel by the prevention of stains and other damages to mattresses.

"The cooperation of housekeeping employes is gained by constant, direct personal supervision and through the medium of regular monthly meetings of all personnel. In all relationships there is an attitude of friendliness and of constructive criticism. Conditions that may cause resentment, those relating particularly to the repetition of work made necessary by other than housekeeping employes, are reported to the housekeeper who endeavors, with the help of other department heads, to eliminate the causes.

"It has been my general experience that cooperation between housekeeping employes and other department employes is entirely dependent upon the relation among department heads. We have materially reduced unnecessary operations owing to the carelessness of nurses, aids and orderlies through the cooperation of our superintendent of nurses; the cooperation of dietary employes was obtained through friendly relationship with our chief dietitian.

"Among the conditions that cause waste are inexperienced housekeeping employes and employes who use cleaning materials contrary to directions. The waste caused by these reasons, however, is small compared to the forms of waste that are a result of the extra operations of cleaning that are performed by the employe. By extra operations I mean the unnecessary operations resulting from the carelessness of other department employes, such as spilling fluids of various types, forming a track (a hazard) on the floor, forgetting to empty the water from waste pails used in connection with oxygen tents, dragging furniture across waxed floors, failing to instruct patients to discard all mouth wipes and other wastes into a bag supplied for that purpose.

"It is generally agreed that it is advisable to purchase cleaning supplies of good quality. It is my experience that the employe, as a rule, does not actually waste supplies nor is he inclined to use them contrary to directions."

Uniforms for Every Service Employe

Maid or Waitress: checked gingham, white collar, cuffs.

Porter: gray covert cloth trousers, broadcloth shirt.

Waitress: yellow monte cloth uniform, brown trim.

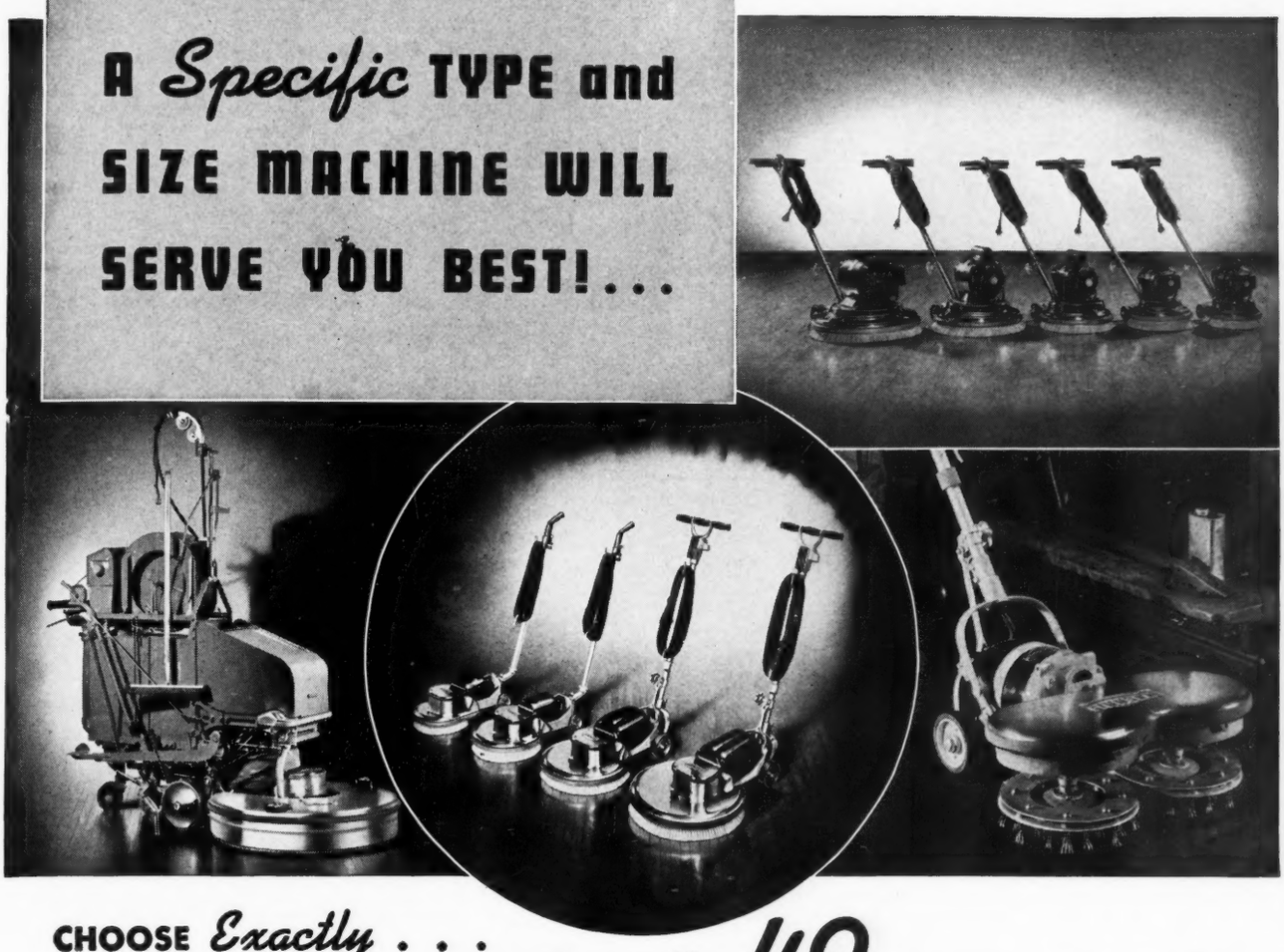
Porter: pin check blouse, trousers with maroon trim.

Maid or Kitchen Help: brown dress with white trim.

In this section last month, Mary DeGarmo Bryan discussed the advantages of uniforms for service employes. Pictured above are a few representative types of hospital service uniforms which are as practical as they are attractive.

FOR *Your* JOB OF FLOOR-MAINTENANCE

A *Specific* TYPE and SIZE MACHINE WILL SERVE YOU BEST!...



CHOOSE *Exactly* . . . FROM *Finnell's* 49 MODELS AND SIZES!

Finnell machines range from the compact little *Household Scrubber-Polisher* to the big *Combination Scrubber with 31-inch brush spread,* designed to speed up and cut the cost of cleaning large open-area floors . . . a selection that meets the varied needs of all the industries served. Included in the *Finnell* line are:

The 100 Series Finnell, the Scrubber-Polisher-Waxer that's *two sizes in one* and especially suited to hospital use. In one of the larger sizes, you can use this *Finnell* in corridors, wards, and other large areas, and then a slight adjustment adapts it to the smaller spaces—individual rooms, et cetera. Low offset design . . . gets into the hard-to-reach places, around and beneath beds, tables, and partitions, flush to baseboards, into corners and crevices. Best of all, this *Finnell* is *noiseless!* Four sizes, as shown in center illustration.

The New 600 Series Motor-Weighted Finnell, with new *feather-touch* safety switch. This model—also noiseless—polishes, waxes, scrubs, steel-wools, sands, and grinds. Comes in five sizes. (Shown in upper right-hand illustration.)

The 400 Series Finnell (left-hand illustration), a *Combination Scrubber* that does the complete cleaning job—scrubs, rinses, and dries the floor. Three sizes. Other *Finnell Combination Scrubbers* include the *500 Series* (two sizes), a compact model for congested as well as more open-area floors.

Shown in lower right-hand illustration is the *Finnell 84-XR Industrial Dry Scrubber* for hard-to-clean floors.

There's a *Job-Fitted Finnell* for *your* job! See what it will save you! For free demonstration on your own floors, phone nearest *Finnell* branch, or write Finnell System, Inc., 1401 East Street, Elkhart, Indiana.

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Packaging Ether for Anesthesia

E. A. ROVENSTINE, M.D., and E. M. PAPPER, M.D.

IF DISCUSSIONS in recent medical literature are reviewed, one must conclude that the optimum package for ether to be used for anesthesia is not determined. The subject is of interest to many persons other than those who actually use the product. Whether large or small containers should be purchased has been debated often by manufacturers, pharmacists, pharmacologists, hospital purchasing agents and administrators but not too frequently by clinical anesthetists.

Aside from the common and principal consideration, the ultimate safety of the patient, somewhat different viewpoints are expressed. The manufacturer looks toward production costs and profits but he is anxious, also, to market a product that will retain, until completely used, the same degree of purity that it had when packed. He will assure the purchaser that, when delivered, approved tests have established his claims for purity. Fortunately for medicine and the public, those firms preparing ether for American use today regard this function of their business with more concern than the fair margin of financial profit due them from sale of the product.

Pharmacists' Point of View

Pharmacists look toward safe and convenient storage, transportation and dispensing as well as costs and budgets. Purchasing agents are anxious to buy at the lowest price possible drugs which physicians require and which they are satisfied to use.

Hospital administrators, few of whom have escaped budgetary perplexities and red inked ledgers, are constantly seeking to decrease expenditures without jeopardizing patients and employes or antagonizing professional staffs. The pharmacologist has for his special interest the behavior of the drug under various conditions and the effects produced at any time used.

The anesthetist, who is charged with the actual administration of ether, has not been given serious consideration in these discussions concerning the merits of small or large packages. The implied attitude seems to be to deliver to the anesthetist a sufficient quantity of ether, assure him that it is safe to use and then to regard the obligation to him as discharged.

It is proposed in this discussion to present a brief but integrated analysis of the problem of packaging ether for anesthesia from several important aspects, including those considered by the anesthetist.

The foremost considerations of everyone interested in the question are the patient's safety and comfort. Is ether as used clinically more likely to have impurities when administered in an approved manner from large containers than when administered from small containers? The fact that this factor is debatable should go a long way toward an answer, since no argument is advanced to suggest that ether from containers of less than one pound is more likely to contain impurities when used than is ether in large containers.

There is definite evidence that impurities may be found in ether and that these substances, often aldehydes and peroxides, may cause physiological disturbances of greater or lesser magnitude. Wilson suggested that they are sometimes responsible for so-called "ether convulsions."[1] Walton confirmed this by finding such impurities in ether used when convulsions have occurred.[2] Mendenhall and Connolly, in a series of papers, suggest that ether impurities may have a bearing on postoperative respiratory complications.[3] This suggestion followed their proving that very small quantities of aldehydes or peroxides present in ether will injure the ciliary mechanism of oysters and mammalian trachea. This effect was not produced with pure anesthetic ether. They think this is sufficient to impair the natural defense of the lower respiratory tract against foreign material including bacteria. Knoefel and Murrell showed that the rate of production of anesthesia in mice was less rapid with ether containing small amounts of impurities (0.2 per cent aldhydes, 0.07 per cent peroxides) because the irritant action of the contaminants causes exudation at the pulmonary epithelium slowing the rate of entrance of ether into the blood stream.[4] If such an exudate is present it might conceivably predispose to increased postoperative respiratory morbidity.

Tests Reveal Impurities

Impurities ordinarily found in ether are due to oxidation and may result from exposure to heat, light, air or oxygen. This being true, many authorities have recommended small containers. For example, Waters[5] believes that tight small containers (¼ pound) should be employed to avoid the necessity for using an opened can the second time. Further support of this point of view is found in the work of Aurelius et al.[6] which showed that impurities develop in ether within two or three days, whatever the container size, but

Department of Anesthesia, New York University College of Medicine, and the Division of Anesthesia, Bellevue Hospital, New York City, respectively.

[1] Wilson, S. R.: Ether Convulsions, Anes. & Anal. **7:4**, 1928.

[2] Walton, B. C.: Case of Complication With Aldehyde and Peroxide Found in Ether, Brit. Med. Jour. **3522:8**, 1928.

[3] Mendenhall, W. L., and Connolly, Ruth: Pharmacological Effects of Impurities in Ether, J. Pharm. & Exp. Therap. **43:315**, 1931.

[4] Knoefel, P. K., and Murrell, F. C.: The Rôle of Production of Anesthesia in Mice by Ether Containing Aldehyde and Peroxide, J. Pharm. & Exp. Therap. **55:235**, 1935.

[5] Waters, R. M.: Factors Influencing the Safety of Anesthetic Ether, Nebraska State Med. Jour. **8:136**, 1923.

[6] Aurelius, J. E.; Herlong, E. S., and Nitardy, F. W.: Chemical Stability of Anesthetic Ether, J. Am. Pharm. Assn. **26:45**, 1937.

A Short Story

NOT NEW—BUT WORTH REPEATING

In the early days Squibb Ether was packaged in glass containers, stoppered with lead-foil-covered corks. Because of loss of ether by evaporation and the danger of fire resulting from breakage, glass gave way to tin.

The lead stoppered tin container overcame the disadvantages of the first package—except the important problem of peroxide and aldehyde formation. Long a subject of scientific research this problem was solved—but only after years of careful study in the Squibb Laboratories.

Glass, tin and copper-lined containers were filled with ether and placed in darkness under identical conditions for a period of 15 months. Periodically 10 containers of each type were opened and tested for aldehydes and peroxides ... and here are the results—

Age in Months	Glass Stoppered Amber Bottle		Tin Can		Copper-lined Container	
	Perox.	Ald.	Perox.	Ald.	Perox.	Ald.
1	0	2	9	3	0	0
2	0	0	9	9	0	0
3	3	0	9	6	0	0
4	7	0	10	4	0	0
5	2	0	10	10	0	0
6	9	7	10	10	0	0
7	10	10	10	10	0	0
8	10	9	7	9	0	0
12	10	9	7	9	0	0
15	10	9	4	10	0	0

These studies were conducted over a decade ago. Since that time Squibb Ether has been packaged in copper-lined containers, which have proved to be a dependable means of protecting the high purity and uniformity of the product. Today Squibb Ether is the only ether protected against the formation of undesirable toxic substances by means of a copper-lined container.

It is significant that Squibb Ether is used in over 85% of American hospitals and in millions of cases every year. Such widespread use is evidence of the confidence which surgeons and anesthetists have in its efficacy in producing safe, satisfactory anesthesia.

For literature address the Anesthetic Division, E. R. Squibb & Sons, 745 Fifth Ave., New York.

SQUIBB ETHER

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more extensively in large drums once the sealed package is opened and stoppered with a cork.

The question of ether impurities has been investigated from a pharmacologic point of view and clinical application by Gold and his associates.[7] They found no more impurities in bulk ether containers closed with corks during several weeks after opening and could detect no clinical differences in anesthesia administered with U. S. P. bulk ether given by "open cone or some form of rebreathing." This was confirmed by Dooley, who makes no mention of anesthesia technic.[8] Gold advocates the use of bulk ether (U. S. P.) rather than "ether for anesthesia" since it is less expensive and equally satisfactory with regard to the safe, comfortable and convenient care of the patient. Smith and his associates[9] examined ether critically and found benzene, a potent mucous membrane irritant, a constant contaminant of U. S. P. ether. Examination of four brands of anesthetic ether revealed benzene in only one and this appeared in a less amount than in U. S. P. ether. Such studies suggest the possible fallacy of referring to any ether as free from impurities after performing tests for aldehydes and peroxides only.

Evidence Incomplete

Since the question of ether impurities is still controversial and the evidence that these impurities are or are not readily formed is incomplete, together with the fact that there is lack of agreement on their toxic effects, it would seem the better part of wisdom to avoid ether that is suspected of containing impurities. Employing for anesthesia ether from small containers the contents of which may be completely used within twenty-four hours is one solution. This is a regulation in the latest United States Pharmacopoeia.

The relative fire and explosion hazards when small and large ether containers are used should be seriously considered in deciding upon the package of ether to purchase. That this factor is not one to be ignored may be demonstrated by citing actual instances of fires outside the operating rooms when large containers were used.

Such reports rarely find their way into scientific literature but the daily news columns are sources of information. For example, the *Chicago Tribune* in January 1936 reported: "Ether Fumes Start Blaze in Drug Room of Hospital . . . Fire started in a drug room at the County Hospital yesterday as a pharmacist was transferring ether from a 5 gallon tin to operating room containers . . . ." The *Minneapolis Star Journal* for Jan. 31, 1941, reports: "Blast Shakes 'U' Structure. A blast audible for nearly a mile . . . caused by fumes escaping from a can of ether kept in a storage refrigerator. . . ." (A 5 gallon container had been partly used; the icebox motor provided the spark.)

The National Board of Fire Underwriters has not omitted to call attention to the fire hazard when large containers are used.[10] The board describes an elaborate and expensive system of safeguards if ether from other than small packages is used. It states, "In view of these necessary safeguards it may be more economical to purchase ether in small containers. Storage of ether in small sealed containers presents little hazard if kept in a cool place apart from combustible materials and sources of ignition."

The National Board of Fire Underwriters has pointed out further that if proper safeguards for handling bulk ether are employed it may be more economical to purchase ether in small containers. Others have reckoned economy in terms of the actual ether used and its unit cost. The money expended for ether purchased in large containers will be less than half the amount needed to purchase the same quantity in small packages. On the basis of figures presented by Bellevue Hospital, New York City, it was determined that the cost of ether per case was approximately seven cents. This low cost was achieved by organizing an anesthesia department composed of physicians and supervised by an anesthetist who utilized modern methods of administration and eliminated waste. If bulk ether had been purchased, a further saving would have been effected but the amount would not have been impressive compared with the considerable decrease in expenditures for the anesthesia service when reorganized on a professional basis.

If economy is the keynote, the greatest medium for effecting it in ether anesthesia is by modernizing the methods for using ether and eliminating waste. A recent questionnaire by Dr. A. W. Snoke, Strong Memorial Hospital, Rochester, N. Y., answered by 42 prominent hospitals showed the greatest discrepancy in the amounts of ether used. For example, one hospital of less than 300 beds required 4500 pounds of ether but a hospital of 1200 beds needed only 360 pounds; one of 1500 beds purchased 1500 pounds and one with more than 2400 beds used 1600 pounds.

Confidence in the Product

From the point of view of the man who uses the drug the question of packaging ether has a particular importance that is rarely mentioned. If his experience has covered many years he will have had cases or learned of them from his preceptors in which impurities in anesthetic agents cost lives or were responsible for serious complications. Ethylene contaminated with carbon monoxide, nitrous oxide diluted with nitrogen, impure ether, deteriorated scopolamine are some of the nightmares of the past. The anesthetic agents on sale today are carefully prepared and the clinician has confidence in the commercial firm whose products he uses. He prefers that the manufacturer to user system be maintained.

There is a sense of security and a peace of mind to be had by opening the anesthetic container one uses just as there is in preparing the solution one injects or reserving for personal use the appliance one has assembled. For convenience and the priceless confidence in his drug, the anesthetist would prefer to open a small container of ether, administer anesthesia for the day and discard the unused portion. The few cents per patient of added cost would be money well spent in furnishing the confidence and security that are had by handling individually the drugs reliable manufacturers have supplied.

[7] Gold, Harry and David: The Stability of U. S. P. Ether, Anes. & Anal. **14**:92, 1935.

[8] Dooley, M. S.; Wells, C. J., et al.: Clinical Comparision of Drum and Other Ethers, J. A. M. A. **105**:1033, 1935.

[9] Smith, A. W.; Boord, C. E.; Adams, C. S., and Pease, C.: Ultraviolet Absorption Spectra of Ethyl Ether, J. Am. Chem. Soc. **49**:3137, 1927.

[10] Handling Ether in Hospitals, National Board of Fire Underwriters Bull. No. 115, Jan. 2, 1941.

". . . FOR PARENTERAL USE".

"Ampuls are hermetically sealed containers commonly made of glass and, when filled, contain sterile solutions usually intended for parenteral use."

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Dextrose and Saline Solutions in *Sterisol Ampoules* are available in all concentrations routinely used. Quantity manufacture assures uniformity and economy. Solutions are chemically correct, proved sterile and physiologically tested for pyrogens. They are free from reaction-provoking impurities. Three convenient sizes—1000 cc, 500 cc, 250 cc. Please write for literature.

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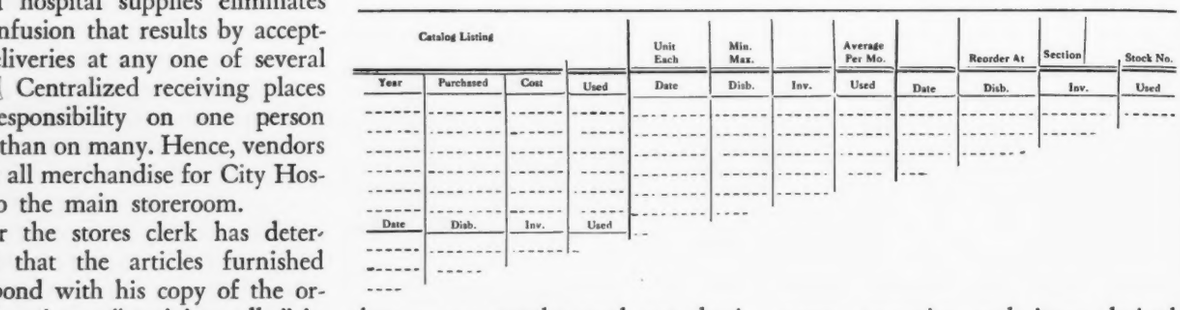
ROBERT A. KUMPF
Chief Pharmacist, Cleveland City Hospital, Cleveland



STRICT adherence to a policy of having only one point of entry for all hospital supplies eliminates the confusion that results by accepting deliveries at any one of several places. Centralized receiving places this responsibility on one person rather than on many. Hence, vendors deliver all merchandise for City Hospital to the main storeroom.

After the stores clerk has determined that the articles furnished correspond with his copy of the order, he writes a "receiving tally," in triplicate, indicating the item and amount received, the name of the vendor and order number. This tally is sent to the pharmacy along with the merchandise.

It is to be understood, of course, that the stores clerk is responsible for receiving by quantity and name only; decision as to whether or not the merchandise meets the desired specifications is the responsibility of the chief pharmacist. The pharmacist then checks the receipts against the tally and enters the amount on the proper inventory card. The chief pharmacist signs the tally; the procurement office records the receipt of the goods, and the tally is sent to the business office for the accounting record. One copy of the tally is sent to the purchasing department of the city for payment certification. In the case of a nongovernmental hospital, this copy would probably be sent to the business office. Items received that are not regular stock are classified as "direct purchases," in which instance the tally and items are sent to the department head making the original request. This tally is then signed by this head, sent to the procurement office and then forwarded to the business office.

All requests for withdrawal of stock items from the pharmacy are submitted on a stores requisition. No supplies are issued without a properly signed requisition, unless otherwise governed by prescription regulations or ordered for issuance to other city departments. (Requisitions for items ordered by other city departments are written by the pharmacist and are receipted by the driver.)

At City Hospital we use a single unit requisition for convenience in maintaining inventory records, filing back orders and expediting dispersals. This form has provision for date, stock number, department name, quantity and item desired and has designated places for approval, delivery and receiving signatures. Requests are written in full accordance with stock number and description listed in the stores directory. For example, drug requisitions must be signed by the head nurse and approved by the nursing supervisor. Requests for sundry items, instruments, enamel and steelware must be signed by the department head, supervisor and the assistant superintendent.

Definite rules are declared in the stores directory for the sending of requisitions to the various issuance departments. They also specify the day and hour on which the items requested will be available. Ordinary drug requisitions are required to be in the pharmacy by 8:30 a.m. daily, together with empty containers. The drugs are available at 10:30 a.m. the same day. Requisitions for narcotics, together with previous record sheets, are to be in the pharmacy by noon on Monday, Wednesday and Friday. The narcotics ordered are available then between 11 a.m. and 12 the following days, *i.e.* Tuesday, Thursday and Saturday. Sundry items are obtainable only every second Monday and requisitions are required to be sent to the pharmacy the previous Saturday.

On the intervention of a holiday, nursing supervisors are notified by letter, by the chief pharmacist, that the pharmacy department will be closed, designating the hour, day and procedure to be followed to obtain narcotics as well as other stock items. Requisitions sent to pharmacy

FILE COPY–RECEIVING TALLY

CITY HOSPITAL
CLEVELAND OHIO

Date Order No. 52-

Received From

Located At

QUANTITY	DESCRIPTION OF ARTICLES	WEIGHT

TALLY MUST BE MADE AND SIGNED IN INDELIBLE PENCIL

RECEIVED QUANTITY AND QUALITY CORRECT

By
Recipient of Above Items

By
Department Head

By
Receiving Clerk

Form 231

A copy of the receiving tally, shown at left, is sent to the pharmacy with incoming merchandise. The chief pharmacist checks receipts against the tally and enters the amount on the inventory card, shown at the top.

PRODUCTS OF BAXTER LABORATORIES

BAXTER TRANSFUSO-VAC

. . . a safe, completely closed technique—with dependable vacuum

The Baxter Transfuso-Vac container and accessories are *all that are needed* for drawing, citrating, transporting, storing, filtering and infusing. *One operator can handle entire technique unassisted.*

The Transfuso-Vac has a mechanically induced vacuum—which gives *positive assurance* that transfusion will not be interrupted by low vacuum and that blood will remain sealed under vacuum.

The exclusive precision Transfuso-Valve accurately controls flow, preserves vacuum and prevents contamination—extremely important in phlebotomy, *but indispensable in aspirating serum and plasma.* Another important and exclusive Baxter accessory is the Filterdrip with its stainless steel mesh, which filters every drop of blood and prevents clots from passing through tubing.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

PRODUCTS OF
BAXTER LABORATORIES
GLENVIEW, ILLINOIS; COLLEGE POINT, NEW YORK; ACTON, ONTARIO; LONDON, ENGLAND
PRODUCED AND DISTRIBUTED IN THE ELEVEN WESTERN STATES BY DON BAXTER, INC., GLENDALE, CALIFORNIA
★ DISTRIBUTED EAST OF ROCKIES BY
AMERICAN HOSPITAL SUPPLY CORPORATION
CHICAGO NEW YORK

that do not comply in detail with the stores directory are returned to the writer with a properly checked "reason for nondelivery" slip. The same procedure is followed should stock requested be temporarily depleted and the requisition is retained by the pharmacy as a "back order" until such stock is available. Should a stores requisition be received for an item not listed in the stores directory as regular pharmacy stock, it is returned to the writer with a "nondelivery" slip checked "not carried in stock."

Generally speaking, the pharmacist is instructed to issue only drugs approved by our committee on pharmacy, as listed in the medical formulary. In case of requests for special drugs required in emergency or desired for experimental work, a "direct purchase requisition" is written by the head nurse, signed by the nursing supervisor and approved by the assistant superintendent. The chief pharmacist is instructed by the committee on pharmacy to obtain drugs for such emergency requests or for therapeutic trial. Requests for items that may be classed as expensive medications are discussed by the chief pharmacist with the superintendent before purchase is made.

Requests made other than at the time designated for items normally available in the pharmacy are to be marked "emergency" by the supervisor and approved by the assistant superintendent before they may be filled. Such emergency requisitions are kept at a minimum and each one is considered individually.

The primary purpose of inventory control is to facilitate operation by providing the type and quantity of materials required at the time needed, with a minimum investment and a maximum turnover. It is to be understood that inventory control goes hand in hand with issuance control. We have found that the principal advantages of an inventory control system are as follows:

1. The written control of quantities, sizes and brands of physical stock minimizes the investment in inventory.
2. It permits purchasing economies, because requirements can be determined more accurately.
3. It assures an available supply of materials, when needed, contributing to smooth operation throughout the hospital.
4. It minimizes the risk of duplication.
5. It provides a check against loss of stock through carelessness and dishonesty.
6. It permits an analysis of consumption figures.
7. It serves as a means for location and disposition of inactive and obsolete stock.

The pharmacy maintains perpetual inventory records on ampules, biologicals, purchased tablets and capsules, sundries and other professional stores supplies. In practice, maintaining inventory is a simple procedure and does not require a great amount of time. At City Hospital not over an hour daily is required to clear an average of more than 150 inventory requisitions. After all requisitions for one day have been properly executed, they are separated according to stores directory numbers. All requisitions for each item are assembled and clipped together. At the top left hand corner of the top page are written the number of requisitions and the number of stock units represented. The date, number of units dispersed, the new balance and the total consumed to date are entered in the proper columns on the stock inventory card. The new balance is put on the top requisition.

All inventory cards bearing entries for the day are checked by the phar-

Reason for Non-Delivery

On Your

Storeroom ☐ Pharmacy ☐ Requisition

Dated ----------

Article ----------

Was not delivered for reason checked (√) below.

Stock depleted ----------

Not carried in stock ----------

No size given ----------

No strength given ----------

No container ----------

Container not clean ----------

Will follow ----------

Quantity not stated ----------

No exchange ----------

Description incomplete ----------

Signed ----------

form 134

Form 87

CITY HOSPITAL
Cleveland, Ohio
STORES REQUISITION

Dept. **12**

Date | Stock No.

Dept. Name

Quantity Requested | New Stock ☐ Quantity Exchanged

Quantity Delivered | Price | Amount

Description

Requested by

Supervisor

Ass't. Sup't.

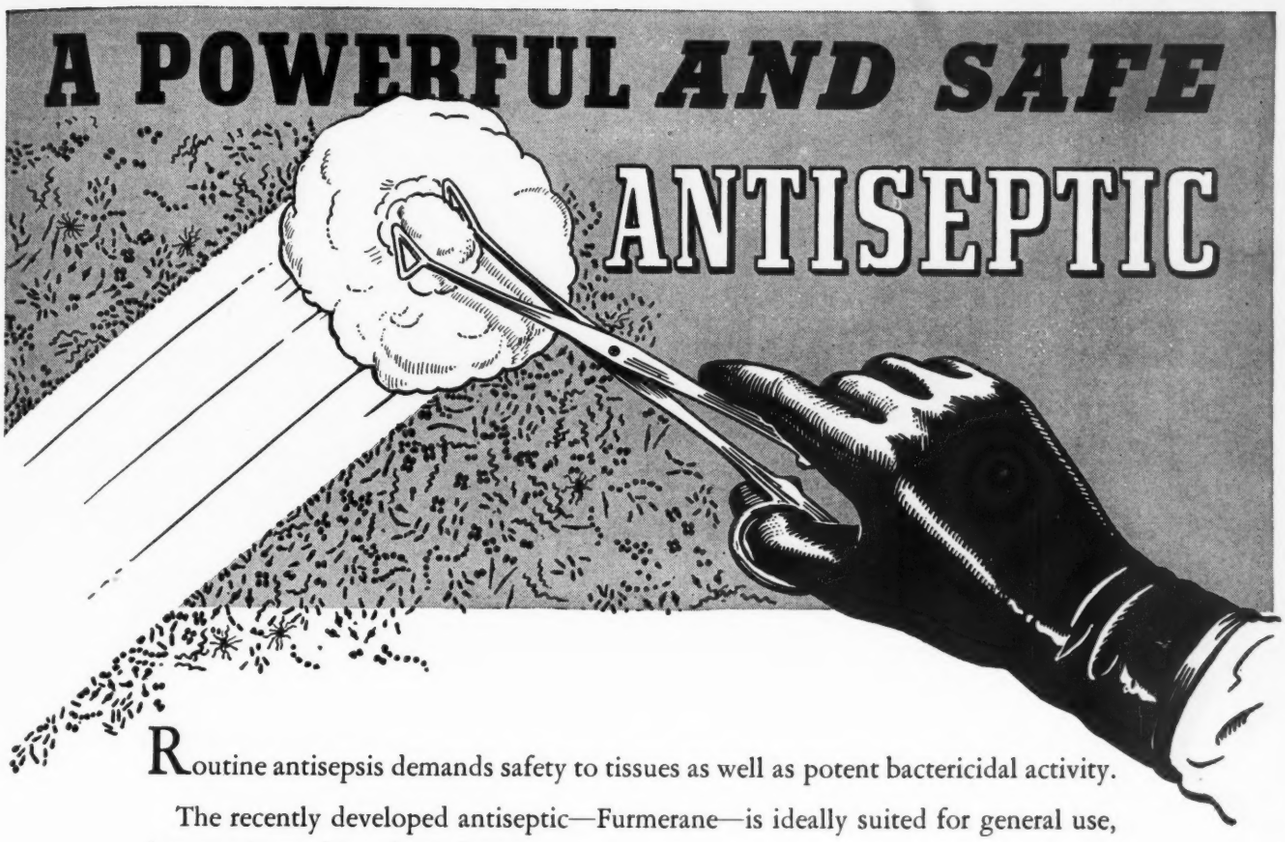
Delivered by

Received by

NOTICE: Requisition must be written strictly in accordance with catalogue specifying stock number and giving complete description of item.

Sample copies of two of the forms that help maintain an efficiently run pharmacy at Cleveland City Hospital.

A POWERFUL *AND SAFE* ANTISEPTIC



Routine antisepsis demands safety to tissues as well as potent bactericidal activity.

The recently developed antiseptic—Furmerane—is ideally suited for general use, because it combines both features.

Furmerane is promptly lethal to a wide variety of organisms, including cocci, bacilli, protozoa, spirilla.

It is effective in very weak dilutions, and exhibits a remarkable freedom from tissue toxicity as evidenced by its low Salle Index and extensive *in vivo* studies.

FURMERANE

(2 HYDROXY-MERCURI FURAN)

Furmerane Solution . . . . . 1:3000; 4-oz., pints and gallons
Furmerane Tincture . . . . . 1:400; 4-oz., pints and gallons
Furmerane Ointment . . . . . 1:3000; ¾-oz. tubes and 1-lb. jars.

G·D·SEARLE & CO.

Ethical Pharmaceuticals Since 1888

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macist by comparing actual physical inventory with the balances shown on the card. It may not appear practical to check this physical inventory daily but with proper arrangement and classification of stock the time involved is negligible.

Requisitions bearing the recapitulation are sent to the business office for cost allocation and inventory purposes and new balances declared by the pharmacy should agree with those of the accounting department. If they do not, recheck of stock and entries is necessary; failing to arrive at an agreement on this point, an inventory adjustment is necessary. With competent help, little difficulty is involved in the process. We have found that stock adjustments are infrequently necessary and then do not involve any appreciable amount of stock. In maintaining this procedure, we find that our record cards bear sufficient data so that we may determine at a glance our current inventory, consumption to date, average per month, previous annual consumption for three years and a predetermined "reorder at" figure.

NOTES AND ABSTRACTS

Conducted by Carl C. Pfeiffer, M.D., F. F. Yonkman, M.D. Arnold J. Lehman, M.D., and Harold Chase, M.D.

Adapting Prescriptions to Patients' Financial Condition

• How many prescriptions given out by physicians to their patients are actually filled? Apparently, there are no available statistics that would shed light on this highly significant question. Unquestionably, a great number are not filled largely, if not entirely, because the patient is unable to afford them.

This is a vexing problem to the physician whose interest extends further than the purely academic one of diagnosing and prescribing for his patient's malady. The physician himself can contribute to the solution of this problem by considering more carefully the cost of the prescriptions he writes. For every type of drug he prescribes he should keep in mind the cheapest possible form of medication. That form should be made available to patients who can ill afford to pay the minimal price of a prescription, let alone more. Forms of medication which emphasize the palatability of the vehicle and the esthetic appeal of the container should be reserved for those patients who can afford those therapeutic niceties. The latter patients not only are willing to pay for those small added satisfactions but would doubtless be disappointed if they did not have to. With the ever present irrationality of man they might even question the efficiency of a physician whose prescription was too inexpensive.

In theory, these foregoing points are so completely accepted as to appear to be amiable platitudes, but a few illustrations will suffice to show that their more complete realization in practice is a "consummation devoutly to be wished."

For Anemic Cases

• Whipple and Robscheit-Robbins and their associates, as well as many others, have abundantly demonstrated that the cheapest soluble ferrous salt is an adequate drug for treating the common type of microcytic, hypochromic anemia. Despite their work, many prescriptions are still written for the relatively inefficient and expensive ferrous and ammonium citrates. A prescription for that drug is justifiable only with patients whose gastro-intestinal tracts demonstrably do not tolerate the cheaper ferrous salts.

There is no excuse at all for prescribing the fancier proprietary forms of iron unless we can honestly admit the patient is able to pay many fold the cost of the cheapest adequate medication for the sake of pampering his palate. The profligate prescribing of liver in so-called secondary anemia is not only unpardonably extravagant but actually dangerous, as Goodman and Gilman have emphasized.

The only certain method we have of diagnosing primary anemia is to give the patient liver (or a therapeutic equivalent) and note the characteristic reticulocyte response that ensues in Addisonian anemia. If we prescribe liver indiscriminately for anemic patients we may mask an early atypical case of so-called primary anemia so effectually that we can attain the certain diagnosis only by withdrawing the liver therapy and permitting a relapse to occur. Should that relapse be of an essentially neurological type, the patient would have to pay a high price for his physician's lack of discrimination. The only alternative would be to compel the patient for the rest of his life to take an expensive form of therapy that he might not require.

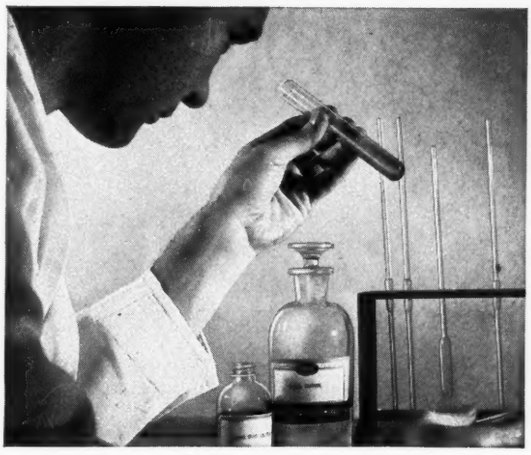
The work of Whipple and his associates with liver has unfortunately led to a certain amount of confusion; this has persisted, notwithstanding their diligent efforts to dissipate it. Liver has a two-fold rôle in treating anemia: (1) it contains the specific antipernicious anemia factor; (2) it is incidentally, and insofar as we know, purely incidentally, the best available source of raw materials for hemoglobin synthesis. Of course, the more purified the preparation for the first use the less effective it is for the second. However, there are other foods that adequately take over this second rôle of liver without confusing the diagnosis of pernicious anemia. Among them are meats, particularly heart and brains, and apricots. These may be prescribed in addition to the iron when a rapid regeneration of hemoglobin is desired. In short, if the patient has pernicious anemia, give him liver; if he has not, don't. Any other practice is open to a charge of negligence.

Vitamins

• The prescription of vitamins is another type of medication in which cost is a significant factor all too often overlooked. Many cases of deficiency may be adequately treated by suggested changes in the patient's diet. The H. J. Heinz Company makes available to physicians and dietary specialists an excellent series of charts giving the vitamin contents of all common foods. Most patients would appreciate it if their physicians would take the time and trouble to show these or similar charts to them and make specific recommendations for dietary changes. If the changes are not specific the patient usually does not make them. When concentrates must be prescribed a little arithmetic will permit the physician to calculate the cost per unit.

Of course, with bio-assayed drugs, we should take care to prescribe the products of reputable houses for obvious reasons. A study of the best food sources of the vitamins will certainly repay one for the time spent. Parsley, for example, is an infinitely cheaper and richer source of vitamin A than is butter. Oranges are not to be compared with green peppers as an inexpensive source of cevitamic acid. Such a study will permit the physician to make specific dietary recommendations and the average patient will appreciate a sympathetic understanding of his economic problems when his physician prescribes for him.—Bradford Craver, M.D.

U. S. P. Test Prevents Presence of Alkaloids in U. S. I. Alcohol



U. S. I. Pure Alcohol assures you absolute freedom from alkaloids because it is tested according to the exacting procedures of the U.S.P. 10 cc. of a mixture of equal volumes of alcohol and distilled water are acidulated with 5 drops of diluted hydrochloric acid and evaporated to 5 cc. The solution is then diluted with distilled water to 10 cc. and filtered. Upon adding a few drops of iodine test solution or of mercuric potassium iodide test solution, the mixture must not develop a precipitate. Such careful tests as this are your guarantee of highest quality in U. S. I. Pure Alcohol.

In pathological tissue examination, accuracy in results depends to a great degree upon the high quality of the alcohol used in preparing the specimen, its freedom from toxic and organic impurities. Laboratory technicians in hundreds of hospitals have found that U. S. I.'s 95%, C.P. 96%, and absolute (200 proof) ethyl alcohol is entirely dependable. They know, too, that U. S. I. Alcohol is pure because it conforms not only to U. S. P. XI and N. F. VI standards, but to U. S. I.'s own rigid requirements for purity. Benefit from these high standards by using U. S. I. Pure Alcohol.

Check your requirements for alcohol with this convenient list of 21 major hospital applications ...and specify U.S.I. Pure Alcohol for every use.

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21 IMPORTANT HOSPITAL USES FOR ALCOHOL

- ☐ Compounding Prescriptions
- ☐ Cresol Compounds Dilution
- ☐ Dehydration of Pathological Sections
- ☐ Drug Tincture & Extract Preparations
- ☐ Duodenal Drainage
- ☐ Floor Dressings and Packs
- ☐ Gastric Analysis
- ☐ Hand Rinsing After Scrub-up
- ☐ Hypodermic Injections
- ☐ Massage and Sponge
- ☐ Pharmaceutical Preparations
- ☐ Pharmacy Solvent for Vegetable Drugs
- ☐ Preserving Specimens
- ☐ Protein Precipitant
- ☐ Spirit Lamps
- ☐ Stains and Reagents
- ☐ Sterilizing Instruments
- ☐ Sterilizing Skin
- ☐ Surgical Soap Preparation
- ☐ Sutures Sterile Solution
- ☐ Therapeutic Nerve Block

News in Review

Additional $150,000,000 Is Probable for Construction in Defense Areas

RUTH HILL ZIMMERMAN
Washington Representative, The MODERN HOSPITAL

A bill authorizing an additional $150,000,000 for the construction of facilities needed in defense areas was passed by the House of Representatives on December 11 and sent to the Senate for consideration. It is anticipated that Senate action will be taken promptly. The original appropriation of $150,000,000, authorized in the act of June 28, 1941, is virtually exhausted. Hospital construction projects were given a relatively small proportion of this amount, a total of about $13,760,000 up to December 15 and final approval of many important projects is awaiting the new appropriation.

Speeding up of construction of defense projects, including hospital and health and welfare projects authorized under the community facilities act, was urged by Federal Works Administrator Philip B. Fleming in an announcement made December 10, the day on which the new administrator took his oath of office.

"Defense housing, public works and defense roads are war programs," he said in part in a telegram to field personnel. "Every organization in the Federal Works Agency, every contractor and worker on F.W.A. projects and every employe of F.W.A. in and outside Washington must do everything within human power to speed construction, to speed contracts and to speed to the earliest possible completion the facilities that are so critically needed."

A-4 priority ratings to aid contractors in obtaining materials have been granted for hospital projects approved under this act, the Federal Works Agency recently announced. Utilities projects, including water and sewer jobs, gas and electric distribution systems, have been receiving A-2 ratings while school projects are being given an A-6.

Eight new hospital construction projects, one revised hospital project, 6 health centers and an addition to the Kentucky State Board of Health building were approved in the month ending December 15. In addition, grants were made to three hospitals to pay for increased maintenance and operation costs resulting from defense needs. While more than 100 applications for such aid to schools have been granted, these three hospitals are the first noneducational projects to be granted funds for operation and maintenance.

Hospital projects were recently approved at Florence, Ala.; Alton, Ill.; Portland, Me.; Elkton and Indian Head, Md.; Watertown, N. Y.; Beaumont, Tex., and Newport News, Va.

Maintenance and operation grants were made for Mineral County Hospital, Hawthorne, Nev. ($5190); Onslow County Hospital, Jacksonville, N. C. ($56,640), and City and County Hospital, Corpus Christi, Tex. ($112,000).

Preparedness Bibliography

The following articles on hospital defense measures and preparedness have appeared in The MODERN HOSPITAL during the last year and a half:

"English Hospitals in War Time Dress," A. G. Stephenson, April 1940, page 54.

"Hospitals Plan for Defense, Part 1," Malcolm T. MacEachern, M.D., October 1940, page 63.

"Hospitals Plan for Defense, Part 2," Malcolm T. MacEachern, M.D., November 1940, page 53.

"Aerial Bombardment," Lucius W. Johnson, Captain, M.C., U. S. Navy, December 1940, page 43.*

"Ten Steps Toward Preparedness," Everett W. Jones, December 1940, page 46.

"From Trucks to Ambulances," April 1941, page 66.

"Nursing Reserves for Defense," John A. Lindner, April 1941, page 49.

"Australia Prepares for the Wounded," A. G. Stephenson, April 1941, page 70.

"Defense Measures the Country Over," June 1941, page 45.

"Sabotage—An Immediate Hazard," James A. Hamilton, June 1941, page 43.

"Six Views on Emergency," July 1941, page 43.

"It Did Happen Here!" Raymond P. Sloan, August 1941, page 43.

"Warren Handles a Catastrophe," Clara Coleman, August 1941, page 46.

"Volunteer Nursing Aids for National Emergency Service," Avis Van Lew, September 1941, page 53.

*Winner of the first Modern Hospital Gold Medal Award.

Service Plan Commission and A.H.A. to Cooperate in Educational Program

Public education activities for the American Hospital Association will be coordinated, during the coming year, with similar activities of the Hospital Service Plan Commission, it was announced in December. The A.H.A. council on public education will advise the commission with respect to matters of special interest to hospitals. National Hospital Day activities will continue as the direct responsibility of the National Hospital Day Committee, with the staff of the commission assisting.

Following similar action by the house of delegates, the commission at its meeting on December 1 urged each Blue Cross plan to serve as a clearing house for its member hospitals in their dealings with out-of-town subscribers. This arrangement will unify the hospitals and plans in the provision of service and will simplify the process of providing out-of-town care.

The commission also considered the problem of providing service benefits for subscribers in hospitals across the border of the enrollment area of the plan in which they held subscription agreements. When legally permissible, hospitals are encouraged to provide service benefits to subscribers of adjacent plans.

An important task of the coming year is the establishment of principles of adequacy and equity of payments by Blue Cross plans to member hospitals. This matter is being considered by a committee on Blue Cross plan relations of the council on public education. The commission voted to encourage the committee to continue study of the problem and make recommendations for submission to hospitals and Blue Cross plans. Among the factors that will be considered are the definition of operating costs, variations in hospital costs and charges, and the proportions of subscription payments used for hospitalization.

The program for the winter conference of Blue Cross plans in Philadelphia March 4 to 6 was outlined. Chicago was selected for the 1943 winter conference.

Hospital Rubber Goods Tax Exempt

The U. S. Treasury Department ruled last month that rubber goods made especially for hospital or surgical use, such as surgeons' gloves, blood pressure apparatus, stomach tubes, catheters, operating cushions and anesthesia apparatus and parts, are exempt from the 10 per cent excise tax contained in the 1941 Revenue Act. Ordinary rubber articles used in the home, such as hot water bottles, syringes, ice bags, door knobs, are not exempt according to the ruling.

MONTHS AGO *we "joined up" under both*

STARS and STRIPES AND UNION JACK

WECK has a "double" defense story to tell Hospitals:

1. Thousands of instruments have been turned over to the various British-aid organizations by American hospitals. Frequently the hospitals classed them as "worthless"—yet Weck craftsmen—super-skilled in "reconditioning" over a period of months have rehabilitated ON THE AVERAGE over 75% of these instruments. And these thousands of Weck-repaired instruments are doing yeoman duty with the armed forces under the Union Jack. This operation has in turn released thousands of new Weck-made and other American-made instruments for America's defense needs.

2. In addition to thus carrying on "REPAIRS AS USUAL" Weck has expanded its plant and personnel on a wide scale and is steadily turning out large quantities of new instruments for American defense needs under the Stars & Stripes.

This double defense story should suggest to American hospitals — DON'T OVERLOAD with new instruments; Weck-repair your old ones and let Uncle Sam have those he needs for defense purposes. You'll save money too, while thus being patriotic. Write today for further details.

Founded 1890

Edward Weck & Co., Inc.
Manufacturers Surgical Instruments
SURGICAL INSTRUMENT REPAIRING • HOSPITAL SUPPLIES
135 Johnson Street Brooklyn, N.Y.

Greatest Present Need Is Additional Nurses' Helpers, Survey Reveals

Additional personnel to assist in providing nursing care, such as trained attendants and nurses' aids, seems to be the great need of the hospitals and clinics that were among the first to return their questionnaires in the survey of hospital and clinic personnel now being conducted by the U. S. Public Health Service and the American Hospital Association.

Replies from 144 institutions, employing a total of 7255 persons exclusive of physicians and of such nonprofessional employes as maids, janitors and laundry workers, had been tabulated by December 15. These replies represent a small proportion of those expected from the approximately 6400 registered hospitals and 350 clinics circularized.

These few hospitals and clinics indicated that filling present vacancies and those that will exist when present plans for expansion are carried out will call for an increase of more than one fourth in personnel to assist nurses. About a 10 per cent increase would be effected if present vacancies were filled and almost 17 per cent more will be needed when facilities are expanded.

Graduate nurses are next highest in list of additional personnel needed. Eight per cent more than are now employed are needed to fill present vacancies and more than 5 per cent more will be needed soon. Many additional orderlies also are needed. An increase of about 7½ per cent is needed now and almost 5½ per cent more orderlies will be needed, a total increase of about 13 per cent. A 10½ per cent total increase in the number of medical record librarians is shown. Almost two thirds of them are needed at once.

The demand for additional student nurses, physical therapy technicians, nurse anesthetists, laboratory technicians, x-ray technicians and dietitians ranges downward from close to a 10 per cent increase over present personnel to less than 5 per cent. Only 2 per cent more medical social workers are wanted and no need for additional dental hygienists or occupational therapists was shown in the sample tabulations.

A similar survey is planned to ascertain the personnel needs of state and local public health departments and of voluntary nursing agencies. This survey will include questions regarding the need for physicians as well as for other personnel. Information on which estimates of the needs of industrial medical services can be based is already available.

An interesting sidelight on the present survey is that questionnaires seem to be coming back more promptly since the declaration of war than they did previously. Some replies, according to the Public Health Service, have come back within two days, evidently by return mail.

Army Not to Encroach on Civilian Needs, Magee Says

A special effort not to encroach on civilian needs for hospitalization will be made by the United States Army, according to the office of the Surgeon General, where the staff has given consideration to various emergency possibilities arising from the war situation.

Civilian hospitals will be utilized, as they are at present, for individual emergencies. Where needs can be anticipated Army hospitals have been or will be provided. In some areas, where in case of emergency no hospital facilities other than civilian may be available, the Army has made plans for converting buildings, such as hotels or clubs, into Army hospitals.

Under certain combat conditions, when civilians would most certainly be evacuated, the Army might take over some civilian hospitals in entirety.

APPROVED
. . . Unanimously!

PARENTS . . . nurse, supervisor . . . doctor—all exhibit satisfaction at Baby-San results. Yes, even the baby, if it were able, would say, "Thank you for Baby-San."

Quiet and contented after the Baby-San bath, the newborn baby sleeps soundly, because the rich lather has a *soothing* effect on sensitive skins. This purest liquid castile soap cleanses quickly and leaves a safety *film of olive oil* to prevent dryness and irritation. Small wonder parents and doctors approve Baby-San.

Nurses prefer Baby-San because it provides a complete bath. No other oils or greases are ever needed. To the supervisor, Baby-San means simplified bathing routine, saving of nurses' time, lower bathing costs.

Today, you find Baby-San in 65% of the nation's nurseries—approved by all as the finest baby soap made.

The Baby-San Dispenser holds one pint. Conserves soap supply. Portable — easily sterilized. Furnished free to quantity users of Baby-San.

The HUNTINGTON LABORATORIES Inc.
DENVER HUNTINGTON, INDIANA TORONTO

BABY-SAN
AMERICA'S FAVORITE BABY SOAP

Curity announces
INSULTOIC* MEMBRANE
for the prevention of adhesions

●Insultoic Membrane is a chromicized absorbable insulating sheet, processed from bovine allantois. It comes sterilized and tubed, ready for use. Confirming the original report of H. L. Johnson, animal experiment and varied clinical experience during the past 5 years suggest its value as an insulating patch over denuded structures to prevent the formation of crippling adhesions. Particular success is reported when the Insultoic Membrane is used in Arthroplasties, Neurosurgery, Tendon and Nerve repair and Fallopian Tube reconstruction.

Further information is contained in the four reports listed below—reprints of the first three furnished on request. Correspondence is invited on the use of Insultoic Membrane.

The Curity Suture Laboratories have been gratified at this opportunity to collaborate with surgical research investigators in the development of Insultoic Membrane, a notable aid to optimum surgical end results.

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Gepfert, J. R., "Studies on the Reconstruction of the Fallopian Tube." American Journal of Obstetrics and Gynecology, Vol. 38, No. 2, pp. 256-264, August, 1939.

Penfield, W., Wilder and Humphreys, Storer and Chao, Yi-Cheng, "A New Method of Preventing Adhesions." British Medical Journal, pp. 517-558, March 30, 1940.

*Trade Mark Reg. U. S. Pat. Off., U. S. Pat. No. 2,135,399

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★ *Careful selection of only* highest titred *donors insures the* unfailing accuracy *of American standardized Human Blood Serum, and results in an exceptionally high titre, clear and clean serum, with no false agglutination reactions.* SET: *2cc each Type A, Type B (50-60 tests) $4.00.* VIAL: *2cc Type O, Moss IV, for confirming (50-60 tests) $2.00. 5cc sizes also available.*

AMERICAN HOSPITAL SUPPLY CORP.
Chicago New York

Supply Lists for First-Aid Posts and Casualty Stations

As outlined in the two bulletins describing the organization and functioning of emergency medical service for civilians published by the medical division of the Office of Civilian Defense, the list of equipment for a first-aid post includes two waterproof carrying cases and the following supplies:

SURGICAL SUPPLIES: 1 Mayo surgical scissors, 5½ inch, curved; 1 Mayo surgical scissors, 5½ inch, straight; two bandage scissors, angular, 7½ inch; 6 Rochester forceps, hemostatic, curved, 6¼ inch; 6 Rochester forceps, hemostatic, straight, 5½ inch; 1 tissue forceps, spring, 5½ inch; 1 tissue forceps, spring, mousetooth, 5½ inch; 1 tongue holding forceps, 7 inch; 1 breathing (airway) tube, hard rubber or metal (adult); 1 breathing (airway) tube, hard rubber or metal (child); 1 pair of tissue retractors, double end nested 9 and 10 inch Army type; 2 Luer hypodermic syringes, 2 cc.; 12 hypodermic needles, 25 gauge, ½ inch; 6 hypodermic needles, 19 gauge, 1½ inch; 12 constriction tubes (length 3 inches); 12 stoppers, tube, constriction; 2 Bard-Parker handles, No. 3; 100 gauze compresses, 4 inches by 4 inches; 200 gauze compresses, 2 inches by 2 inches; 25 surgical pads, 8 inches by 10 inches (Dakin); 24 gauze bandages, 2 inches; 24 muslin bandages, 4 inches; 24 triangular muslin bandages, 50 inches by 36 inches by 30 inches; 2 ounces absorbent cotton, roll, sterile; 1 pound cotton batting, roll; 2 rolls of adhesive plaster, 2 inches by 10 yards.

DRUGS: 20 morphine sulphate syrettes, 0.015 gm.; 10 morphine sulphate syrettes, 0.030 gm.; 12 sulfathiazole, powder, vials, 5 gm.; 1 ophthalmic ointment, boric acid, 5 per cent (tube, 4 gm.); 2 tubes of tannic acid jelly, 45 gm.; 1 bottle of denatured alcohol, ethyl, bottle, 500 cc.; 1 bottle of aromatic spirits of ammonia, 60 cc.; ½ pound sodium bicarbonate; 100 phenobarbital tablets, 0.03 gm.; 12 ampules of caffeine sodium benzoate, 0.5 gm.; 20 cc. epinephrin hydrochloride, 1:1000.

MISCELLANEOUS SUPPLIES: 48 safety pins, large; 12 splints, basswood; 24 wood tongue depressors; 25 wood applicators; 1 rubber sheeting, 45 inches by 72 inches; 2 white enamel basins, 9 inches by 6 inches by 1⅞ inches (one with cover); 1 gasoline stove (Coleman); 1 indelible pencil; 1 dermatographic pencil (red); 4 heating pads, chemical; 4 heating pads, refills, chemical; 2 pairs of surgeons' rubber gloves, size 8 (latex); 1 flashlight (two cell); 1 electric lantern, dry cell type; 4 dry cell batteries for lantern, No. 6; 4 dry cell batteries for flashlight, No. 950; 25 paper cups; 1 nail brush; 2 bars of hand soap; 12 hand towels; 3 boxes of safety matches; 3 field tourniquets, web; 1 laundry bag, small; 6 identification tags, book of 20; 1 casualty record book; 6 catgut, plain No. 1 tubes, boilable; 6 packages of dermal silk, medium, 40 inch strand; 6 Mayo suture needles, catgut, size 1, ½ circle, trochar point; 6 cutting edge needles, straight.

The foregoing list indicates the medical and surgical equipment for each physician of an emergency medical field unit and his team of nurse and orderly or nurses' aid. One or more such teams man a first-aid post. First-aid posts are subsidiary to a casualty station which will furnish replacements of drugs and surgical supplies.

The equipment for a casualty station consists of about twice as many supplies for each squad as are found in the first-aid station, in addition to such bulky articles as traction splints. Casualty stations can replenish the supplies of first-aid posts as the need arises. Blood, plasma and biological products, such as tetanus antitoxin or toxoid, may be obtained by casualty stations from the parent hospital; therefore, they are omitted from this list. The supplementary supplies for an emergency squad of two or four physicians, nurses and nursing auxiliaries are as follows (supplies transported in an Army type of trunk):

SPLINTS: 4 Thomas arm splints, hinge; 4 Army type of leg splints, half ring; 2 Thomas leg splints, child; 2 Murry Jones arm splints, child.

DRUGS: Quantity double that of first-aid station for each squad and 100 procaine hydrochloride tablets, 0.18 gm.; 4 bars of hand soap and 100 sodium chloride compressed tablets, 1 gm.

Committee on Purchasing Plans Second Institute

A second institute on hospital purchasing will be held in cooperation with the University of Michigan at Ann Arbor from June 28 through July 3, according to an announcement from Arden E. Hardgrove, chairman of the program committee for the institute as well as chairman of the committee on purchasing of the American Hospital Association. This committee is in charge of the institute, with Mr. Hardgrove as director of the institute and F. Hazen Dick, purchasing agent of the University of Michigan, as associate director.

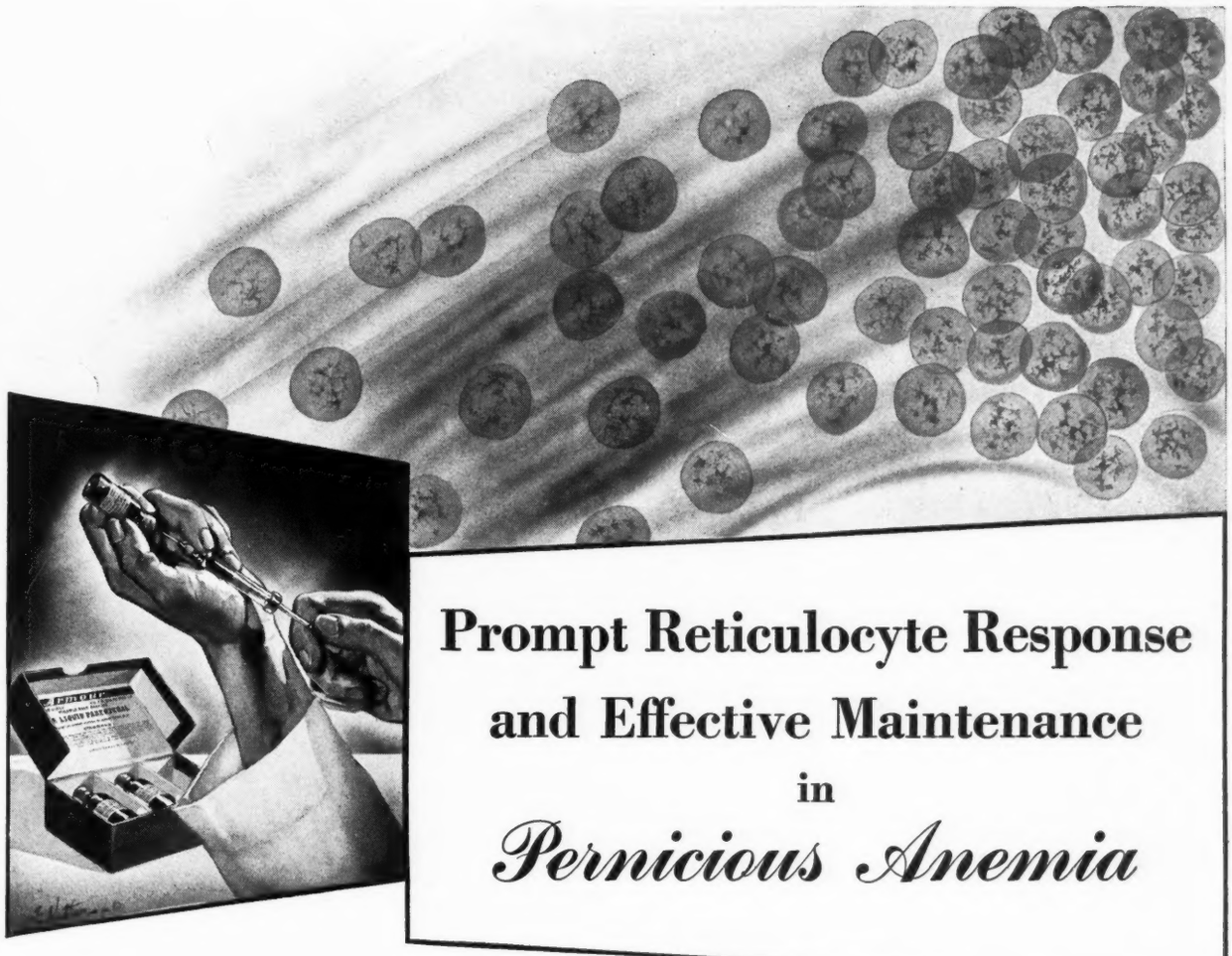
Based on the experience of the first institute held at Johns Hopkins University last summer, lectures on the theory and practice of purchasing and on purchasing procedures will be confined to the morning sessions. Afternoon meetings will be almost entirely devoted to considering the purchase of specific commodities. These sessions will be devoted to quality, specifications, sources of supply, price trends, inventory to be carried and future or contract purchasing. Evenings will be devoted to round table discussions and question periods.

Completed programs and application forms can be obtained from Charles Fisher, Department of Extension Service, University of Michigan.

Registration for the institute is limited to 100. The registration fee is $15 and charges for room and board for the period are $20.

Pictorial History Published

The growth of medicine and hospitals during the last century is the subject of a pictorial review, "100 Years of Medicine in Minnesota," just published by the Minnesota State Medical Association.



Prompt Reticulocyte Response and Effective Maintenance in *Pernicious Anemia*

● That the reticulocyte response is more rapid with parenteral than with oral administration of liver preparations is now generally recognized. In addition, it has been pointed out by eminent authorities that "Parenteral injection is the most certain and convenient method for insuring adequate maintenance."[1]

But the importance of employing a reliable and potent parenteral liver preparation must not be overlooked. Thus Musser and Wintrobe have observed that "the use of inactive extracts" is one of the causes of failure in pernicious anemia therapy.[2]

ARMOUR LIVER LIQUID (Parenteral) is prepared from selected livers of young, healthy, growing animals. The utmost skill and care are employed to protect the blood regenerating active constituents of the fresh liver against excessive heat and oxidation. It is free from protein and toxic amines, thus eliminating danger of local and systemic reaction; but it is not refined to such an extent that minor hematopoietic factors are lost. Finally, it is accurately standardized to contain not less than four U. S. P. units per c. c. You can have confidence in the quality and potency of *ARMOUR* LIVER LIQUID (Parenteral). Literature describing therapeutic routine and dosage will gladly be sent to physicians on request.

Armour Liver Liquid (Parenteral) 4 U. S. P. Units per c. c. has been accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

Specify
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1. *Whitby, L. E. H. and Britton, C.: Disorders of the Blood, Churchill, 1935, p. 191.*
2. *Musser, J. H. and Wintrobe, M. M.: Tice, Practice of Medicine, Prior, Vol. VI, p. 852.*

The Armour Laboratories
CHICAGO, ILL., U. S. A.
MEDICINALS OF ANIMAL ORIGIN

Anticipate Merger of British Associations to Unite Lay Administrators

By S. R. Speller
Editor, *The Hospital*

A fusion of the Incorporated Association of Hospital Officers and the Incorporated Association of Clerks and Stewards of Mental Hospitals is expected within the next two months. The reconstituted association will then embrace lay administrators of all types of hospitals in Britain and it should be able to play a great part in helping to find correct answers to the complicated problems arising in the development of a satisfactory administrative system for all hospitals.

Up to the present the professional association for lay hospital administrators of voluntary hospitals has been the Incorporated Association of Hospital Officers, founded in 1902. The Incorporated Association of Clerks and Stewards of Mental Hospitals has been a separate organization since its founding in 1904. Clerks in Britain mean the secretaries of the responsible board or committee while steward means the chief lay administrator. Usually the two offices are combines.

Both associations have been granting diplomas of professional competence. However, there has been no special association for the stewards of other public authority hospitals, probably because these hospitals have only recently developed from mere workhouse infirmaries for the aged and chronic sick.

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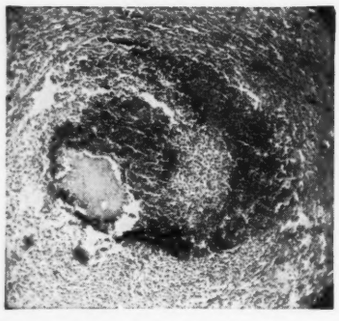
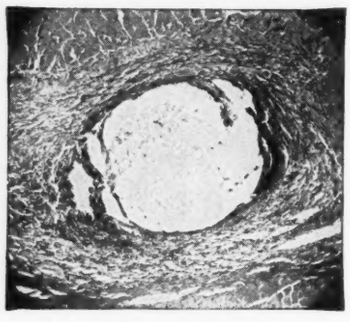
—truly non-reactive, non-capillary, guaranteed physiologically inert



Plain catgut suture at two weeks; note absorption and inflammation



Plastigut suture at two weeks; no reaction, inflammation or absorption

An approach toward the ideal suture material is found in Plastigut Surgical Sutures, clinically developed by Dr. Joseph E. Bellas of Peoria. Plastigut is composed of synthetic plastic materials especially chosen with regard to suture requirements. Histological and clinical evidence proves it nonreactive, noncapillary and nonabsorbable. At any given stage, repair is more advanced in cases in which Plastigut is used than in those in which catgut is used. This is to be expected, since with Plastigut there is no irritating inflammatory and exudative reaction to hinder repair. There is no danger in leaving Plastigut in place; after two years it has been found intact, virtually a part of the supporting structures.

Plastigut is used in smaller sizes, due to its greater tensile strength. Plain Plastigut is offered in sizes No. 00, 4-0 and 5-0. Black, for skin work, is offered in sizes No. 0, 4-0 and 5-0. Size No. 00 is recommended for all general work, size No. 4-0 for ties, size No. 5-0 for plastic surgery and No. 0 for heavy tension sutures.

PRICE—Plastigut Sutures in Sterile Tubes, length 60 inches, all sizes. Dozen, $3.00. Gross, $29.50. Three-gross lots, per gross, $27.50.

References to the literature provided on request.

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Survey of Chicago Shows Increase in Student Nurses

The reputed shortage of qualified applicants for schools of nursing is not corroborated in a survey recently completed by the Central Council for Nursing Education, Chicago. This organization, composed of six nursing schools, also surveyed the 16 nonmember nursing schools in Chicago that are connected with hospitals having an average occupancy of 100 or more patients.

The enrollment in the six member schools in the fall of 1941 was 337 as compared with 285 in the fall of 1940, an increase of 18 per cent. In 1941 there were 682 students in the 16 nonmember schools as compared with 578 in 1940, also an increase of 18 per cent. None of the member schools reported any lack of suitable applicants for the fall classes and no lowering of admission standards. In the nonmember schools, two reported difficulty in selecting suitable applicants.

Both groups reported greater difficulties in housing the graduate and student nurses. In one of the schools, 30 students, in addition to the graduate nurses, are living outside.

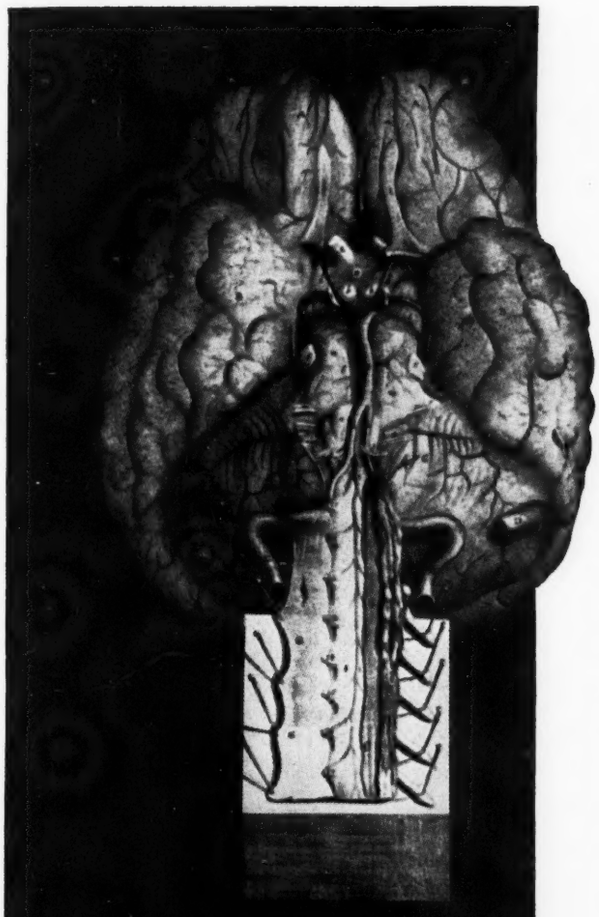
Bureau of Mines Reports on Anesthetic Mixtures

The inflammability of ether-oxygen-helium mixtures used in anesthesia is discussed in a report recently issued by the Bureau of Mines. The report (3589) covers investigations done under a cooperative agreement between the Bureau of Mines, St. Francis Hospital, Pittsburgh, and a committee under the direction of the department of anesthesia and industrial hygiene, University of Pittsburgh School of Medicine.

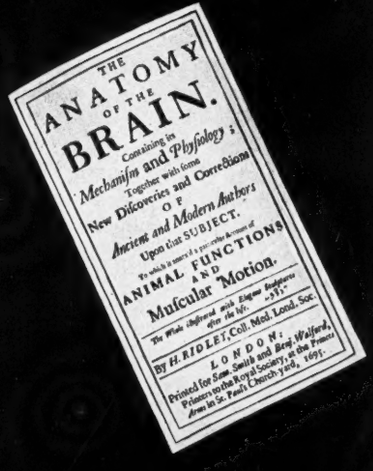
There is a considerable range of mixtures of ether-oxygen-helium in which, according to the report, no explosive violence was produced. Such mixtures, although inflammable, are far safer, from the explosion standpoint, than mixtures containing high percentages of oxygen, which in normal practice are violently explosive.

Rural Missouri Has 24 Service Plans

According to a report by the Missouri Farm Bureau Federation, there are now 24 hospital service groups organized in rural counties throughout Missouri.



From the "elegant sculptures after the life" which are found in that classic anatomical volume of 1695, credited to H. Ridley—"The Anatomy of the Brain."



Storm Center

...THE BRAIN

When electroencephalography records the brain potential of epileptic patients prior to and after the use of Kapseals Dilantin Sodium, the oscillograph usually depicts more normal brain waves. Furthermore, seizures diminish in frequency and severity. As a result of this, the patient's general attitude and behavior are favorably influenced and he is permitted to enjoy a more normal life.

A combined report of thirteen clinicians states that in 404 out of 595 epileptic patients, Dilantin Sodium was more effective than other anticonvulsants[1]. Its value in patients not responding to other medication has been reported[2]. All in all, Dilantin Sodium (phenytoin sodium), a product of long and systematic research in clinic and laboratory, marks a definite forward step in the management of epilepsy. Complete details upon request.

1. Council Report: J.A.M.A., 113: 1734, 1939
2. Merritt, H. H. & Putnam, T. J.: A. J. Psychiat., 96: 1023, 1940

KAPSEALS DILANTIN SODIUM

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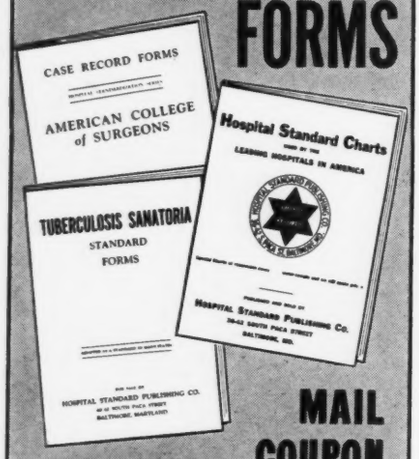

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Mrs. F. B. J. Bickle, president of the Women's Auxiliary of Glenwood Community Hospital, Glenwood, Minn., and Dina Bremness, superintendent, examine the cup awarded the hospital for its 1941 National Hospital Day publicity program. Two hundred people of the community attended the hospital award banquet December 9. Similar programs were conducted at Detroit honoring Michigan Hospital Service's award for state-wide observance of National Hospital Day and at Huntington Memorial Hospital, Pasadena, Calif., winner of the publicity award for cities of more than 15,000 population.

Nurses' Aid Training Making Slow Progress, O.C.D. Report Indicates

WASHINGTON, D. C.—The training program for nurses' aids, cooperatively undertaken early in the fall by the Office of Civilian Defense and the American Red Cross, is making much slower progress than was anticipated, according to the Medical Division of the O.C.D.

Hospitals in many communities have been slow to agree to carry out their part in the training program. Numerous and varied reasons have been given for their refusal. Some hospitals have stated that they do not need the services of volunteer nurses' aids either because they have an amply large nursing staff or because they have paid aids. Others have N.Y.A. or W.P.A. assistance and believe that the volunteer aids will only provide a duplication of services already being provided.

The Office of Civilian Defense points out that N.Y.A. and W.P.A. workers usually do not perform the same functions as the nurses' aids.

Questions concerning liability and application of insurance policies to the use of volunteer aids are causing difficulties in other instances. Insofar as the possibility of injuries to volunteer aids is concerned, the Office of Civilian Defense is suggesting that volunteers be asked to sign a release of responsibility.

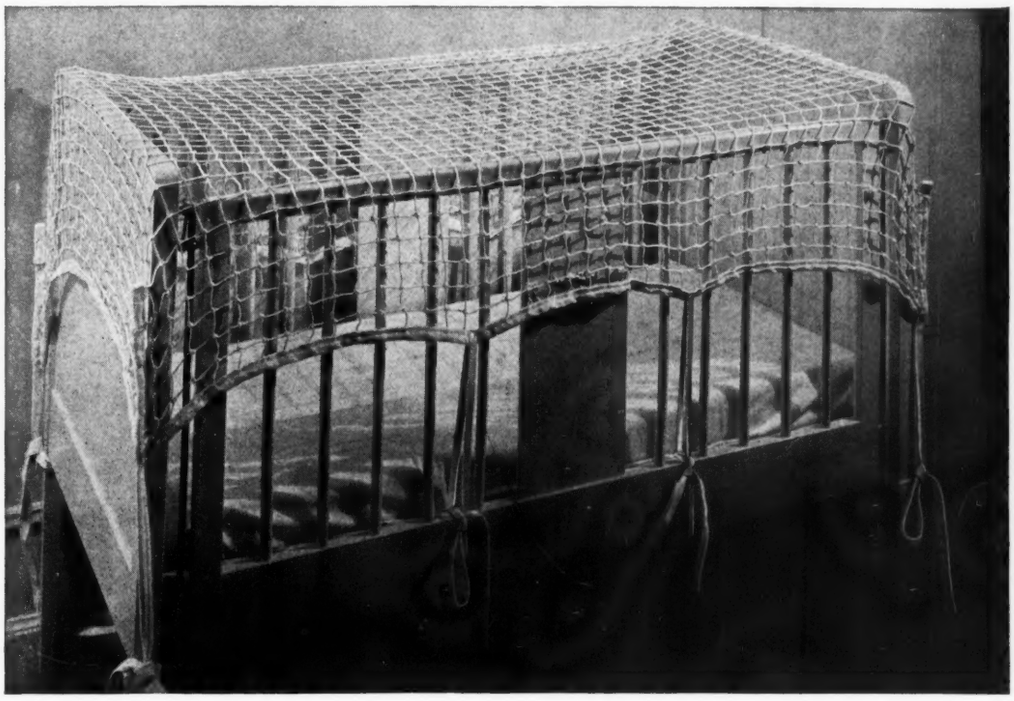
In addition to the program for training nurses' aids, the Red Cross is conducting courses in home nursing. According to a recent report, 15,000 nurse instructors are needed to take care of present enrollment in these courses.

Grant of $15,000 Provides for Public Relations Film

A grant of $15,000 to be used in making a sound motion picture for public relations work of hospitals and Blue Cross plans was received last month by the Commission on Hospital Service from the Simmons Company, Chicago. There are no restrictions upon the nature of the film except that it be consistent with the policies of the American Hospital Association.

The commission plans to create a one reel picture to tell the hospital service story in a dramatic manner. A substantial part of the grant will be used to purchase additional copies of the film so that it may obtain the widest possible showing. It is hoped that the film may be finished in time for National Hospital Day.

The details of the grant were arranged by Roger C. Wilde and John W. Hubbell for the Simmons Company and by C. Rufus Rorem for the commission. Employes of the Simmons Company are enrolled in hospital service plans approved by the A.H.A.



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The idea covering a crib with a net in order to effect the comfort and protection of an invalid or fractious child is not a new one. However, we believe, never before has any manufacturer marketed a standard, scientifically-developed, moderate-priced net.

We are proud to introduce the Gold Medal Crib net as the sensible, modern and economical means of keeping the child inside the crib—safely and happily so.

For further information communicate with your hospital supply dealer or the nearest office of:

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Dr. R. C. Buerki Heads New Subcommittee on Hospital Plant Defense

WASHINGTON, D.C.—Protective procedures for hospitals during the war will be studied by a new subcommittee which has been appointed by Dr. George Baehr, chief medical officer of the Office of Civilian Defense. Dr. Robin C. Buerki has been named chairman of the new group. Other members are Dr. Willard C. Rappleye, Dr. A. J. Hockett, Dr. Anthony J. J. Rourke, Dr. Joseph C. Turner and Dr. Huntington Williams.

Measures for preventing or minimizing damage to buildings, handling of casualties, evacuation, provision and protection of supplies, training of personnel for specific duties in case of bombing were discussed in detail at the first meeting of the subcommittee held in New York City.

The basis for the discussion was a study on physical defense of hospitals made by a committee of the American Hospital Association of which Doctor Hockett is chairman. It is expected that a report compiled jointly by the American Hospital Association committee and the O.C.D. committee will be available shortly after January 1.

Miami Plans New 300 Bed Hospital

Plans are under way for a 300 bed general hospital to be known as the Dade County Hospital, which is being built by the city of Miami, Fla., and is to be operated by the county. It will coordinate all charity work, for both in-patients and out-patients, in one place, enabling the present county hospital to be turned over to tuberculosis and chronic disease cases. Jackson Memorial Hospital will continue to care for pay and part pay patients. The project will cost approximately $1,000,000 of which $300,000 is a federal grant. John and Coulter Skinner and Paist and Seward are the associated architects. Charles F. Neergaard has been retained as consultant.

The American Hospital Association convention for 1943 will be held at Buffalo, N. Y.

Emergency Nursing for New York

A plan for twenty-four hour emergency nursing service for New York City has been announced through the Office of Civilian Defense. All nurses will be assigned to specific health districts and will be notified of disaster calls through the office of New York's chief of emergency medical service.

A. P. H. A. Survey Shows Religious Workers Active in Majority of Hospitals

Thirty per cent of the Protestant hospitals replying to a questionnaire about their religious work stated that they have chaplains but only one third of these chaplains are employed on a full-time basis. This was one of the interesting facts brought out in a survey conducted by the American Protestant Hospital Association and published last month.

In addition, 11 per cent of the hospitals have directors of religious education of whom one half are on a full-time basis. Furthermore, 15 per cent of the hospitals have superintendents who also act as chaplains. In all, therefore, 56 per cent of the reporting Protestant hospitals have some kind of official religious worker.

In addition to the official workers, visiting clergy spent an average of 14 hours weekly in hospitals.

Bethesda Plans Nursing School

Solicitation for the proposed $400,000 educational and dormitory building for the Bethesda Hospital School of Nursing, Cincinnati, was begun recently. When completed, the building will accommodate 156 nurses and eight supervisors.

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Above: Fenestra Projected Weather-tight Steel Window. *Left:* An Ordinary Double-Hung Window that leaks air.

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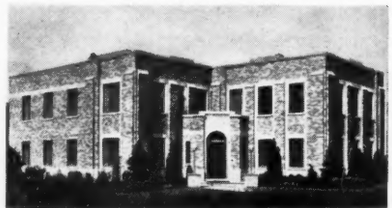
Reasons: (1) each ventilator makes double contact against frame; (2) locking hardware draws ventilator tight shut; (3) window is built of solid-steel sections which never warp or shrink; (4) precision-fitted at the factory, Fenestra Windows stay tight-fitted.

Fenestra Hospital Windows provide: *easy opening*—steel ventilators never warp, swell or stick, and they swing instead of slide; *more daylight*—less frame, more glass; *better ventilation*—open-in ventilator forms a built-in windguard; *safe washing*—both sides of glass washed safely from inside a room; *increased fire-safety*—steel does not burn.

The *low cost* of Fenestra Hospital Windows is a surprise to many people. It is due to volume production by America's oldest and largest manufacturer of solid-section steel windows . . . For complete details, write Detroit Steel Products Co., Department MH-1, 2255 East Grand Boulevard, Detroit, Mich.



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G. M. Merritt & Lyle S. Cole, Architects;
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THE heavy guns of a modern battleship bear most of the brunt of the action. They are the ones that are depended upon to do a big job swiftly and surely.

Here are three Wyandotte Products which will take over the brunt of most dishwashing work.

• ***Wyandotte Keego*** is the cleaner you will want to use if you wash your dishes by machine. It rinses freely, is swift in action, economical in use, and is adapted to both hard and soft water conditions.

• ***Wyandotte HDC*** is built for use where hand dishwashing is desired. This low-cost, efficient cleanser will clean your dishes quickly and thoroughly. A little goes a long way to make light, foamy suds.

• ***Wyandotte Steri-Chlor*** is a chlorine germicide in powder form used in the final rinse after washing dishes, glasses, silver and all culinary equipment. Its use provides a definite health protection.

There are other Wyandotte Dishwashing Compounds built to meet varying water conditions. If you have unusual water conditions in your locality, your local Wyandotte Representative will be glad to check your dishwashing routine with you and recommend the proper Wyandotte Product.

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Hospital and Nursing School Celebrate 50th Anniversaries

The Protestant Deaconess Hospital, Evansville, Ind., has set aside the week of February 16 to 22 for official celebration of its fiftieth anniversary. Through the radio, newspapers, theaters and schools the history of the hospital and its activities will be brought before the public.

A fiftieth anniversary brochure is being prepared for general distribution and the picture, "White Battalions—Serving All Mankind," will be shown in local theaters followed by an announcement of the anniversary celebration and open house, which will be held on the afternoon of Feb. 21.

Henrotin Hospital, Chicago, observed the fiftieth anniversary of the founding of its school of nursing on December 6. Veronica Miller, superintendent of Henrotin Hospital, is a graduate of the school of nursing, as is Katharine Knott, present director of the school.

Jubilee Hospital Opens New Wing

A recent addition to Royal Jubilee Hospital, Victoria, B. C., has unified the food service department by releasing patients' space in the old building for location of the main kitchen around which the entire catering service revolves.

Announce Poster Contest

A contest for posters that can be used by hospitals in the observance of National Hospital Day has been announced by the National Hospital Day committee and the council on public education of the American Hospital Association. First prize is $200. The contest is open to amateur or professional artists anywhere.

Committee Concentrates on Aid to U. S. Hospitals

In keeping with the Medical and Surgical Relief Committee's new policy of concentrating future activities on American hospitals and other organizations requiring emergency aid, two complete medical catastrophe units were shipped to the West Coast on December 15.

Arrangements are now under way to send similar first-aid units to hospitals in New York, South Carolina, Maine and Vermont.

Patients' Book List Available

A book list, "Patients Speaking," which cites patients' evaluation of both fiction and nonfiction read during their hospital stay, has been compiled by the Minnesota Association of Hospital, Medical and Institution Librarians. Copies are available at the St. Paul Public Library.

Work of Private Health Agencies Subject of Study

A comprehensive study of the activities of all private health agencies in the United States is to be made by the National Health Council of New York under a special grant of $75,000 from the Rockefeller Foundation.

"The study will take about three years to complete," Dr. Kendall Emerson announced, "and the report will answer such broad questions as the following: What are the various types of state and local voluntary health agencies? What fields do they cover? What methods of cooperation with official health agencies have they established? What do they cost to operate? What types of health work lead to the greatest active participation on the part of the citizens?"

New Microscope for Virus Study

An electron microscope that magnifies objects from 25,000 to 100,000 times normal size has been installed in the experimental surgery laboratory of Duke University School of Medicine. Potentially 100 times more powerful than the most modern optical microscope, the new instrument will be used at Duke to continue the study of viruses, which has been instituted in the division of experimental surgery.

THE PURITAN VALVE SEAL *Your Safeguard* for Gas Machine Orifices and Flow Meters

After the valve is carefully inspected, the valve outlet of the Puritan Cylinder is thoroughly cleaned and immediately sealed. The Puritan Cylinder is furnished ready for use. It is not necessary to clean dust or other foreign material from the valve outlet when gas is demanded from a new cylinder.

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PURITAN MAID

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ANY SOAP YOU USE—

We Have It

•

Armour and Company manufactures every kind of soap a hospital uses. And it is high quality soap. The same scientific accuracy that produces Armour's Hospital Green for the surgery also compounds Liquid Scrub Soap to clean your floors and walls safely. You can depend on all the soaps manufactured by Armour and Company. And we make a soap for all your needs.

For the Housekeeper—

FLOTILLA for patients and the staff. A high grade, unmilled hand soap in ½, ¾, 1, 1¼ oz. bars, wrapped or unwrapped.

WHITE FLOATING, the same soap in 2, 2½, 3, 6 oz. bars, unwrapped.

LIQUID SOAP for dispensers in washrooms. Concentrations of 15%, 23%, and 40%, colored Amber or fluorescent Green.

LIQUID SCRUB SOAP for floors—rubber tile, varnished wood, or linoleum. Also for furniture and painted or enameled walls.

HOSPITAL GREEN SOAP, a base for a scrub soap.

LIGHT HOUSE CLEANER, a scouring powder for cleaning porcelain and enameled surfaces.

SAIL SOAP for hand floor scrubbing.

For the Dietitian—

QUAD POWDER for dishwashing machines.

SAIL SOAP, a bar soap or hand dishwashing.

ARCONOMY FLAKES, a chip for hand dishwashing.

LIGHT HOUSE WASHING POWDER for floors and greasy pots and pans.

For the Pharmacist—

HOSPITAL GREEN SOAP for tincture base.

For the Laundry Manager—

FLINT CHIPS, a high titer soap (41° to 42° C) Neutral, 88% real soap.

POWDERED FLINT, 92% real soap. Can be used dry on the wheel.

HILO POWDER for fugitive colors, cold water work, and the break.

GIANT POWDER, a high titer, built soap, for all sudsing operations.

VERDANT NEUTRAL FLAKES for delicate fabrics and fugitive colors. Low titer, 91% real soap.

VERDANT BUILT POWDER for blankets and fugitive colors.

TOPAZ CHIPS, 74% anhydrous soap. Built, for flat work and fast colors.

TEXSCOUR FLAKES for silks and colors. Titer between 8° and 12° C. 91% real soap.

K O P for silks, French cuffs, collars, and rug shampooing. A coconut oil potash soap.

FLOTILLA FLAKES for woolens, blankets, and delicate fabrics. Neutral, with a coconut tallow base.

For the Surgeon—

HOSPITAL GREEN SOAP for the surgeon's scrub-up. Commercially neutral, a hard jelly soap.

Ask Your Armour Man About His COMPLETE Line of Soaps

• • •

ARMOUR AND COMPANY

INDUSTRIAL SOAP DEPT. 1355 W. 31st STREET, CHICAGO, ILL.

Goldwater Pleads for Voluntary Health Plan on Radio's "Town Meeting"

A strong plea for voluntary as well as governmental action to improve the public health was made by Dr. S. S. Goldwater, president of Associated Hospital Service of New York, in a discussion in early December before "America's Town Meeting of the Air."

"When a government that is concerned for our well-being is informed that remediable physical defects are common, that disease is widespread and preventable, that timely medical care is not available to all of its citizens, it is to be expected that alert officials will spring into action.

"The familiar indictment asserts that private medical practice, the voluntary hospital system and local health administration have failed. It is inferred that medical care must be administered by government, since government alone is in a position to promise that no preventable illness will be disregarded, that no sick person will be neglected, that no imperfection in medical technic will be tolerated.

"I am ready to acknowledge," Doctor Goldwater stated, "the difficulty of immediately providing prompt and sufficient private medical care for all regions and all classes, but I believe in the practicability of substantial further progress under private and local initiative and control. Although government aid may be and no doubt is required, the limits of self-help have not been reached.

"For the great mass of regularly employed low-income workers, a powerful economic barrier to prompt hospital care can be removed by the wider development of plans for group hospitalization and related medical care."

Coming Meetings

Jan. 22—Wisconsin Hospital Association, Mid-Winter Conference, Hotel Wisconsin, Milwaukee.

Jan. 26-31—Minnesota Hospital Institute, University of Minnesota, Minneapolis.

Feb. 20-21—Arizona State Hospital Association, Phoenix.

Feb. 22—North Dakota Hospital Association, St. Alexius Hospital, Bismarck.

Feb. 26-28—Texas Hospital Association, Houston.

March 7-9—New Jersey Hospital Association, Hotel Dennis, Atlantic City.

March 11-13—New England Hospital Assembly, Hotel Statler, Boston.

March 20—Louisiana Hospital Association, Washington Youree Hotel, Shreveport.

April 6-10—American Congress on Obstetrics and Gynecology, Jefferson Hotel, St. Louis.

April 9-11—Southeastern Hospital Conference, Peabody Hotel, Memphis, Tenn.

April 13-16—Association of Western Hospitals, Olympic Hotel, Seattle, Wash.

April 14—Alabama Hospital Association, Montgomery.

April 15-17—Pennsylvania Hospital Association, William Penn Hotel, Pittsburgh.

April 16-18—Carolinas-Virginias Hospital Conference, John Marshall Hotel, Richmond, Va.

April 21-23—Ohio Hospital Association, Neil House, Columbus.

April 23-24—Mid-West Hospital Association, Hotel Continental, Kansas City, Mo.

April 23-24—Kentucky State Hospital Association, Brown Hotel, Louisville.

April 27-29—Iowa Hospital Association, Fort Des Moines Hotel, Des Moines, Iowa.

May 6-8—Tri-State Hospital Assembly, Stevens Hotel, Chicago.

May 6-9—National Tuberculosis Association, Bellevue-Stratford Hotel, Philadelphia.

May 11—Mississippi State Hospital Association, Jackson.

May 12-16—South Dakota Hospital Association, Hotel Carpenter, Sioux Falls.

May 13-17—South Dakota Hospital Association, Y.M.C.A., Sioux Falls.

May 18-22—American Nurses' Association, National League of Nursing Education, National Organization for Public Health Nursing, Biennial Convention, Stevens Hotel, Chicago.

May 20-22—Hospital Association of New York, Hotel Statler, Buffalo.

May 22—Greater New York Hospital Association, New York City.

June 3-6—National Executive Housekeepers Associaton, Detroit.

June 8-12—American Medical Association, Atlantic City, N. J.

June 15-19—Canadian Medical Association, Jasper Park, Alberta.

June 22-26—Canadian Nurses' Association, Windsor Hotel, Montreal, Que.

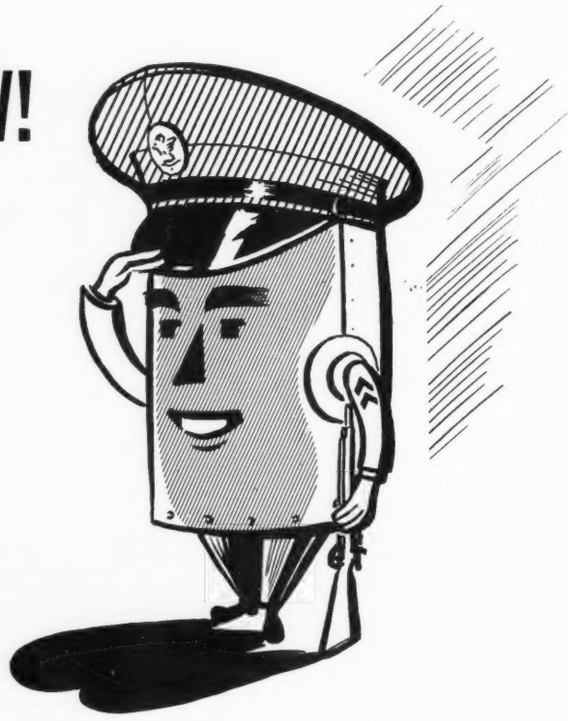
Aug. 17-21—National Medical Association, Cleveland.

Aug. 24-28—American Dental Association, Boston.

Oct. 12-16—American Hospital Association, St. Louis.

Oct. 26-31—American Public Health Association, St. Louis.

IT'S IN THE ARMY NOW!



• Many United States Army hospitals have installed REFINITE Water Softeners, for Uncle Sam knows the ability of REFINITE products to do the job right . . . to meet the most rigid standards and tests.

REFINITE installations at the Fort Riley, Kansas, hospital, Fort Knox, Kentucky, hospital, and the Veterans Hospital at Marion, Indiana are a few of the locations where REFINITE is on the job . . . doing its tour of duty.

Uncle Sam knows that REFINITE Water Softeners save money, cut down soap, soda and linen costs, eliminate boiler compounds, and make real savings on fuel costs. That's why he selected them. Hospitals from coast to coast are installing REFINITE Water Softeners. There is a REFINITE unit designed to help YOU and YOUR problem. Write today for details.

THE REFINITE CORP.

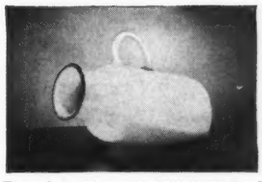
RIVAL OF THE CLOUDS

REFINITE BUILDING OMAHA, NEBRASKA

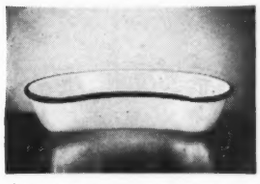
THE FOURTH LEAF...

You'd never glance a second time at a three-*leaf clover. It's the* fourth *leaf—that something* extra—*which makes it so highly prized.*

● Vollrath Enameled and Stainless Steel Ware gives you *that something extra.* Vollrath's well-deserved leadership has been earned through sixty-eight years of quality manufacturing. That is why leading hospitals from coast to coast insist upon Vollrath ware. They know that their patients and physicians recognize *that something extra* that is Vollrath quality. Today as always Vollrath Hospital Ware is designed to give you *that extra* beauty, utility and long life . . . We urge you to investigate *now!*



Porcelain Enameled Male Urinal



Porcelain Enameled Pus Basin

Stainless Steel Bedpan

Stainless Steel Irrigator

The Vollrath Co.

ESTABLISHED 1874

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Names in the News

Administrators

GUY M. HANNER, after serving for twenty-one years as superintendent of Beth-El General Hospital, Colorado Springs, Colo., resigned last month to accept the position of administrator of the Desert Sanatorium of Southern Arizona, Tucson, Ariz. MRS. IRENE SNYDER has been appointed as acting superintendent of Beth-El General Hospital.

BENNETT J. MCCARTHY, formerly business manager of Winchester Memorial Hospital, Winchester, Va., has been appointed superintendent of that institution.

DR. JOHN R. ROSS, superintendent of the Harlem Valley State Hospital, Wingdale N. Y., has been appointed superintendent of the Hudson River State Hospital, Poughkeepsie, N. Y., succeeding the late DR. RALPH L. FOLSOM.

MARY E. SULLIVAN has resigned as superintendent of Harford Memorial Hospital, Havre de Grace, Md., a position she has held for the last twenty-five years.

DR. JOHN E. GORRELL, formerly administrator of Battle Creek Sanitarium, Battle Creek, Mich., has been appointed assistant director of the Massachusetts General Hospital, Boston. Doctor Gorrell will assume his new duties on January 1.

GEORGE M. EDBLOM, formerly superintendent of St. Luke's Hospital, Fergus Falls, Minn., assumed his new duties as superintendent of Winona General Hospital, Winona, Minn., last month. EMIL C. HANSEN has been appointed Mr. Edblom's successor at St. Luke's Hospital.

DR. R. H. RUNDE, superintendent of the Missouri State Sanatorium, Mount Vernon, Mo., for the last four years, announced his resignation recently.

Miscellaneous

ARTHUR E. SPILLMAN has been appointed business manager of Mendocino State Hospital, Talmage, Calif.

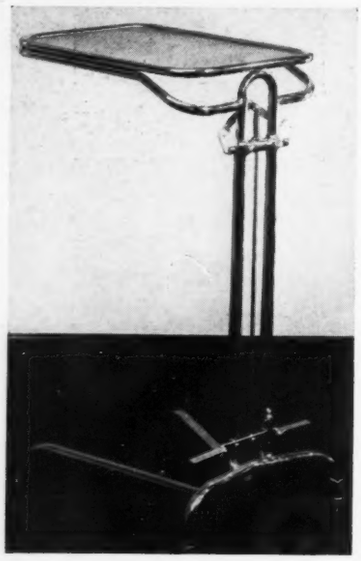
Several additons and revisions to the personnel of the new Wesley Memorial Hospital, Chicago, have been made recently. They include: JOSEPH M. CHAMPLEY, chief engineer; MRS. HERTHA MCCULLY, for the last ten years executive housekeeper of the Lake Shore Drive Hotel, Chicago, executive housekeeper, effective January 1; MARY MITCHELL, formerly of Harper Hospital, Detroit, obstetrical supervisor; J. M. PRINCELL, pharmacist, and EMMA L. GRIMM, assistant superintendent of nurses.

DEAN CONLEY, business manager of the students' health service of the University of Minnesota, has been appointed executive secretary of the Americal College of Hospital Administrators effective January 1. He will succeed GERHARD HARTMAN, who takes up his new duties as administrator of Newton Hospital, Newton Lower Falls, Mass., on that date. Mr. Conley has been associated with the University of Minnesota Hospitals in various capacities since 1931. He participated actively in the organization of the student health service and was in charge of the construction of the new hospital for the service. This was described in The MODERN HOSPITAL for February 1941. He has attended several hospital institutes in various parts of the country and has served as a lecturer at the Minnesota Institute for Administrators.

E. REID CADDY, administrator of South Baltimore General Hospital, Baltimore,

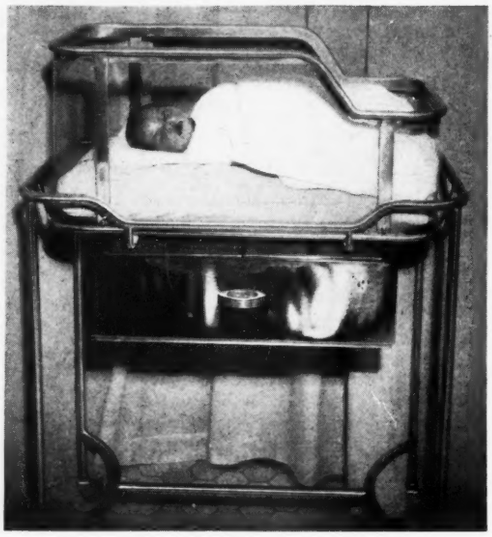
The New Chicago **WESLEY** *says* **"O. K."**

Every item in the magnificent new Wesley Memorial Hospital in Chicago was chosen for utmost suitability to its purpose. The simple fact that the Mayo Surgical Instrument Table and the Clark Plastic Crib were selected for this institution is the most eloquent testimonial that could be written.



Mayo **INSTRUMENT TABLE**

Designed to place instruments most conveniently for use. Adjustment of height from 34" to 58" is accomplished by a foot lever that releases and locks a double eccentric clutch, permitting adjustment at any time without contamination of the operating field. Top has extruded metal shelf 15" by 24". Frame is of chromium plated steel tubing. Front feet slide under any table. Rear legs, curved backward for balance, slide on gliders.



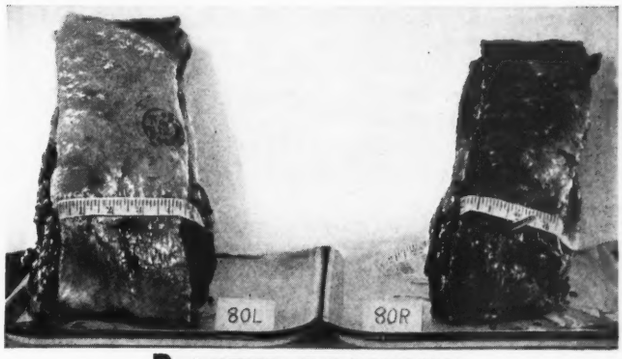
Individual Care **WITH THIS PLASTIC CRIB:**

Isolation and visibility are provided by plastic sides reinforced with chromium finished metal supports mounted on chromium plated tubular frame. The silent rubberized drawer is easily accessible from front or rear and works on ball bearings. Drawer is divided into two sections, one for bottles, the other for linens. Eliminates need for cubicles in the nursery.

A. M. CLARK CO., 329 SOUTH WOOD ST., CHICAGO

FOR WAYS TO CUT MEAT COSTS
Look into your ovens!

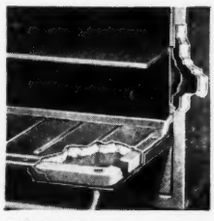
A-BEFORE ROASTING



B-AFTER ROASTING

Are you putting 45 pounds of roast into your ovens and getting only 30 pounds out? Here are actual photographs of meat shrinkage caused by uncontrolled temperature. Also a dramatic story of the saving you can make by applying modern roasting methods—as told by Jessie Cline in the December issue of American Restaurant Magazine. The two roasts shown in (A) were identical at the start—same weight—same width of slicing surface. The piece at the left was then roasted at 200° F., while the one at the right was roasted at 475° F. Now look at the different results as shown in (B). Overcooking in the roast at the right can cause shrinkage loss of from 30% to 40%. Shrinkage cannot be entirely eliminated. But it can be reduced to as low as 7% in roast beef, for example, by automatic controls such as are used in Vulcan Ovens—and by meat thermometers which show the internal temperature of meat as it rises during the cooking period.

In the interest of economy and food conservation during the National Emergency, we will be glad to supply reprints of Miss Cline's article "Modern Meat Methods of Meat Cooking Reduce Shrinkage and Increase Profits." Write for your free copy today.



Insulated ovens save gas and cut down heat in kitchens.

New oven construction gives double roasting capacity on same gas.

Modern automatic heat controls reduce meat shrinkage and food losses.

MODERN VULCAN

GAS COOKING EQUIPMENT

pays its way in savings

The Vulcan co-ordinated cooking unit system reduces cost of installing new equipment.

Mr. R. R. Gross, Manager of The Governor Clinton Hotel, Kingston, N. Y. says:—"From the figures just presented me, I learn that in the month of August just passed, our gas bill was 23% lower than in the same month of last year in spite of the fact that our food income showed a substantial increase—some 1800 meals to be exact. And when you further consider that this saving of 23% is on the entire gas bill which includes other equipment not replaced, a cake griddle and a peel type pastry oven, it really is something to shout about."

See the Vulcan Exhibit at the National Restaurant and Hotel Shows

STANDARD GAS EQUIPMENT CORPORATION

18 East 41st Street, New York

Branches in: BALTIMORE • PHILADELPHIA • CHICAGO • BOSTON • AURORA, ILL. • NEW ORLEANS • LOS ANGELES

has been appointed a member of the board of directors of the Associated Hospital Service of Baltimore.

EVERETT W. JONES, administrator of Albany Hospital, Albany, N. Y., has been appointed associate in hospital administration in the Albany Medical College. In this position Mr. Jones will lecture on hospital administration to medical students.

DR. S. F. CRYNES, pathologist at Springfield City Hospital, Springfield, Ohio, resigned his position last month.

RUTH HOULTON, formerly associate director of the National Organization for Public Health Nursing, has been appointed general director of that organization. Miss Houlton's appointment becomes effective January 1.

SOPHIE C. NELSON, director of nursing service for the John Hancock Mutual Life Insurance Company, Boston, has been appointed chairman of the subcommittee of the health and medical committee of the Office of Defense Health and Welfare Services, PAUL V. MCNUTT, director, announced. Miss Nelson succeeds MARY BEARD, who has resigned to devote full time to the American Red Cross nursing program.

DR. HAROLD EARNHEART, who for several years has been assistant director of the American College of Surgeons giving particular attention to the organization's program for graduate training in surgery, has resigned to accept a position with the medical department of Swift and Co., Chicago, effective January 1.

Department Heads

DR. KARL M. BOWMAN, head of the psychiatry department, Bellevue Hospital, New York City, since 1936, resigned to become director of psychiatry at the University of California at Berkeley.

Foundation to Train Psychiatrists

The Menninger Foundation was recently organized at Topeka, Kan., for the purpose of training psychiatrists and giving postgraduate psychiatric training to physicians in other fields, to carry on psychiatric research, to provide treatment to a representative group of patients who are selected not because of their ability to pay but for their specific needs and their intelligent cooperativeness and to carry on preventive activities through adequate scientific child study. Dr. Karl A. Menninger was elected president of the foundation; John R. Stone, vice president; Dr. William C. Menninger, secretary, and Dr. Robert P. Knight, treasurer. The other trustees include prominent psychiatrists and philanthropists of New York City, Topeka, Chicago, Sante Fe, Washington, D. C., and Baltimore.

Public Health Association Urges Annual Sample Census

Because the greatly heightened tempo of defense has brought a tremendous increase in interstate and intrastate migration, the American Public Health Association has urged that the U. S. Bureau of the Census make an annual sample enumeration of the population.

It is suggested that the annual census be taken in 67,000 small areas with an average of 100 persons each. These areas would be carefully selected to give a good cross section of the entire country and would undoubtedly be as accurate as scientific public opinion polls.

Plan Hospitalizes 75,000th Member

The 75,000th member of the Hospital Service Association of Pittsburgh was hospitalized last month, according to an announcement from Abraham Oseroff, vice president and secretary of the association. The plan is slightly less than four years old.

Illinois Plan Celebrates Anniversary

The Central Illinois Hospital Service Association celebrated its fifth anniversary with a dinner at the Pere Marquette Hotel, Peoria, Ill., last month. C. Rufus Rorem, secretary of the Hospital Service Plan Commission, delivered the address.

Insist on
Franklin's
RUBBER GLOSS
WAX
Non-Slippery!
Hospital floors
MUST be
Safe!
It is a proved fact that the more RUBBER GLOSS WAX you use on a floor, the less slippery it becomes. This is a particularly important feature in hospitals. But that's only one reason for using it. Use it also because it produces a beautiful glossy floor that keeps maintenance costs at a minimum. Easy to apply too.
Write for Bulletin 1MH
FRANKLIN RESEARCH COMPANY
Philadelphia
DISTRIBUTORS AND WAREHOUSES IN PRINCIPAL CITIES

What's New for Hospitals

JANUARY 1942 SUPPLEMENT TO THE MODERN HOSPITAL AND THE HOSPITAL YEARBOOK

THIS supplement presents information on significant hospital products for the use of administrators, department heads and medical personnel. Only items of definite application in hospitals are described

THE MODERN HOSPITAL PUBLISHING CO., INC.
919 North Michigan, Chicago, Ill.

Centralinear Control Unit

The General Electric automatic Centralinear Control unit for the operation of high powered diagnostic x-ray generators is said to provide for increased accuracy, greater flexibility and utmost simplicity.

The time consuming procedures required with conventional control units are said to be eliminated and the possibility of error in settings is reduced to a minimum. Independent control is provided for intermediate values in addition to the automatic adjustments for most frequently used technics.

For protection against damage to the x-ray tube which might result from the use of the wrong timer, the Centralinear Control is designed so that for exposures requiring more than 300 ma. the operator can connect only the impulse timer in the circuit. Both timers are controlled from a single hand switch or foot switch. One operation of positioning the technic selector automatically makes all necessary circuit changes to insure obtaining the ma., tube, and focal spot selected for a desired technic which is indicated in the illuminated window of the indicator.

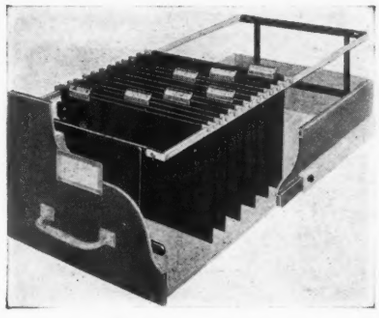
Accurate line voltage compensation is provided through the voltage compensator which provides for line changes of as high as 25 volts. It is only necessary to adjust the compensator, regardless of the technic to be used. The universal stabilizer provides an automatic means of compensating for line voltage variations. **(Key No. 571)**

General Electric X-Ray Corp., Dept. MH, 2012 Jackson Blvd., Chicago, Ill.

Oxford Pendaflex Filing Method

A new method of filing is offered in the Oxford Pendaflex file. All folders are suspended from a steel frame which is readily placed in any cabinet drawer after removal of the follower block. Frames are supplied to fit drawers of varying depths and folders fitted with hanger rods and insertable celluloid tabs are suspended from the frames.

Each folder will hold as much as 1¾ inches of papers or catalogs. Headings are said to be 100 per cent visible as folders drop into place by gravity. The folders and guides being suspended,



no follower block is needed and there is no sagging or leaning, hence there is no bottom pressure and gravity keeps all papers and folders in place. All letter and legal size folders can be filed in the Pendaflex and operations are said to be speeded up at least 20 per cent.

The Pendaflex desk data outfit fits into any modern desk and gives instant location and replacement of important data. **(Key No. 595)**

Oxford Filing Supply Co., Dept. MH, 334 Morgan Ave., Brooklyn, N. Y.

Kathabar System for Air Conditioning

The outstanding feature of the Kathabar System is humidity control, said to eliminate chill, shock and clamminess resulting from air conditioning. The Kathabar unit for completely controlling humidity in any air conditioning system consists of two major parts, the Contactor Cell and the Regenerator.

The humidifying or dehumidifying unit (Contactor Cell) may be used as a single cell unit on small installations or in series where large volumes of accurate humidity control are required.

Installed on the roof or in other convenient air intake locations, incoming fresh air comes in contact, in these cells, with the Kathene solution which is circulated throughout the Kathabar System and adds humidity or absorbs humidity accurately and automatically, in accordance with the desired result. The Kathene solution is nonexplosive and noninflammable. The solution also serves to cleanse the air of dust particles and odor and the air may be warmed or cooled as required.

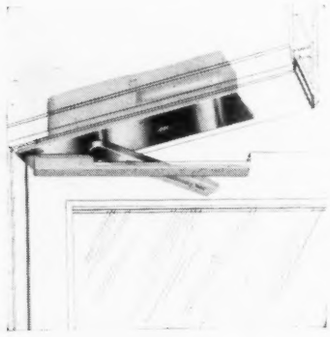
The second part consists of the Regenerator, pictured above, for cleansing, reclaiming and recirculating the Kathene solution. This equipment may be located in an out of the way place, usually at some distance from the Kathabar cells located at the fresh air intake. The Regenerator and Contactor Cells are connected by two pipes forming the complete circulating system. In hospitals special exhausts prevent recirculation of air and possible dissemination of odors or air-borne infection. **(Key No. 568)**

Surface Combustion Corp., Dept. MH, Toledo, Ohio.

Address manufacturers for further information and prices—or use Readers' Service blank on page 159

LCN Door Closers

The new LCN No. 644 and 666 double acting overhead concealed heavy duty door closer is designed for use with



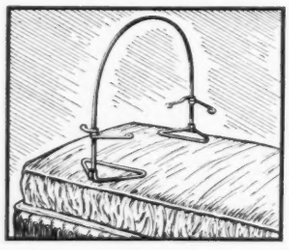
large exterior or interior double acting doors. The closer is concealed in the head frame and a double acting lever arm folds into a prepared recess in the door. Adjustable coil springs and full control checking mechanisms handling the inswing and outswing are separately controlled. The closer is equipped with shock absorbers and hold open devices.

The door is hung on center type ball bearing pivots which, according to the manufacturer, makes for the cleanest possible installation. The closer is available in two sizes and can be used with either wood or metal construction. **(Key No. 597)**

Norton Lasier Co., Dept. MH, 466 W. Superior St., Chicago, Ill.

Sweetland Bed Cradle

This inexpensive Bed Cradle is strong and durable. The large, sturdy base slips between the mattress and the spring and



is held firmly in place by a self-locking clamp. The cradle is tightened on the bed by holding the spring that surrounds the cradle bar and pressing down. The clamps are released by pressing down on the inner ends of the clamp fingers.

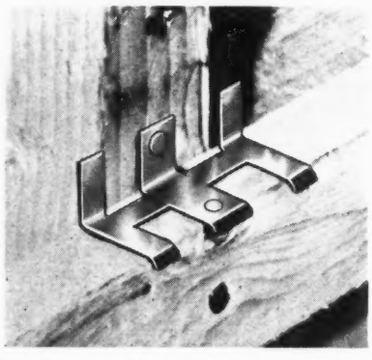
Since the Bed Cradle is as wide as the bed, it offers the patient room to turn and move about under the cradle. The manufacturer states that it cannot be accidentally tipped over or moved out of place and that it provides ready access to the patient for treatment and dressing purposes.

Made in both body and leg sizes, the cradle is compact and requires little storage space. It is cadmium plated to resist rust. **(Key No. 532)**

E. J. Sweetland Co., Dept. MH, 405 Montgomery St., San Francisco, Calif.

Anchor Clip System

The new Anchor Clip System is a method for securing gypsum lath to the studding to produce sanitary, crack-resisting, floating plastered walls and ceilings at a cost said not to exceed that for ordinary nailed-on walls. Only three forms of clips are necessary in constructing walls and ceilings with open frontal nailing of the clips to the studs for easy application.



The "float" is provided through the ability of the clips to compensate for the swelling, shrinking, warping and twisting of framework. Tests of this method showed that even with a finished wall section twisted 45 degrees out of line or studs spread two full inches by a mechanical jack, the plaster did not crack. **(Key No. 596)**

Celotex Corp., Dept. MH, 919 N. Michigan Ave., Chicago, Ill.

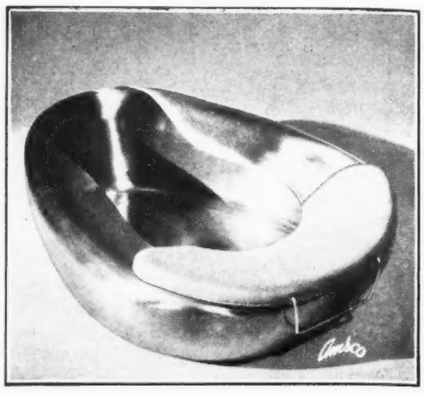
Towel Shelf and Utility Rack

A practical, streamlined new towel shelf and general utility rack is constructed with heavy-duty square metal bars and frame and reenforced wall brackets. It is finished in high luster chrome, is rust resistant and easy to clean. The over-all size is 9 by 21 inches. For bathroom, kitchen and closet use, it holds towels, wash cloths and tissues and has six utility hooks at the ends of bars for hanging robes. **(Key No. 614)**

Autotyre Co., Dept. MH, Oakville, Conn.

Amsco Pan-O-Pad Bed Pan Cushion

The Pan-O-Pad is a soft, semicircular cushion made from sponge rubber. This material has thousands of minute, rubber-



encased air chambers and the surface is treated so that it acts as a smooth, tough protective covering. The pad is soft and resilient and adds to the comfort of the patient. The Pan-O-Pad is held in place on the bed pan by means of a simple spring which is attached to the pad and clamps to the back part of the pan to hold it securely in place.

The bed pan cushion can be sterilized in steam or hot water or kept surgically clean according to any routine procedure. It will fit any standard type of bed pan. **(Key No. 531)**

American Medical Specialties Co., Inc., Dept. MH, 12 E. 12th St., New York, N. Y.

New Size in Trane Turbo-Vacuum Compressor

The new fifty ton Trane Turbo-Vacuum Compressor is a hermetically sealed, low-pressure water chiller constructed with two cylindrical steel shells. A single motor with all impellers on a single shaft is contained in the lower shell with the water chilling coil, while the upper shell houses the condenser coil. All parts of this new water chiller are in one complete, compact unit.

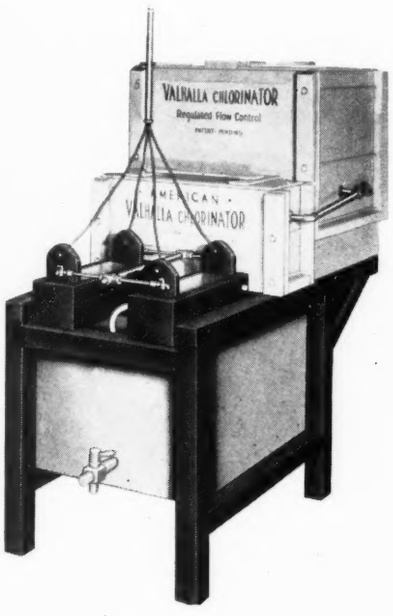
A complete low pressure refrigeration system applicable to all cooling operations as well as all process work that does not require temperatures lower than those available with chilled water, this compressor saves weight, space and operation and maintenance overhead, according to the manufacturer. Easy to install and operate, the Trane Compressor requires a minimum of care, is vibrationless, quiet, and uses a non-toxic, non-inflammable refrigerant. **(Key No. 605)**

Trane Co., Dept. MH, LaCrosse, Wis.

Address manufacturers for further information and prices—or use Readers' Service blank on page 159

Bleach Making Machine for Laundries

The American-Valhalla Chlorinator is a machine in which bleach can be made in the laundry, enabling the operator to produce this solution to meet his requirements. All that is needed for the



Chlorinator are water, common salt and electrical current. A brine solution made with water and common salt, such as is used in water softeners, flows through electrolytic cells. The action of the current passing through the brine in the cell electrolyzes the brine and produces sodium hypochlorite. The bleach thus produced is said to be ready for immediate use in the washer without further processing.

This method of producing sodium hypochlorite has been developed because of the increasing shortage of chlorine for civilian use. It is especially adapted to use in hospital laundries for sterilizing the wash as well as for a stain remover and bleach. **(Key No. 600)**

American Laundry Machinery Co., Dept. MH, Norwood Station, Cincinnati, Ohio.

New Model of Peters Universal Hospital Light

The new model of the Peters Universal Hospital Light incorporates some important changes from the original model announced in May, 1941.

The iris diaphragm for controlling the amount of indirect light is now standard equipment. Standard finish is ivory baked enamel instead of satin chromium plate. Colors to harmonize with all color schemes are still available on quantity orders. Tubing of the swing arm has been made heavier, and gives added rigidity to the entire unit. A new mounting plate has been designed to fit the unit to wooden bed models without injury to finish. A standard wall bracket is also available when specified as regular equipment, or may be had as an additional mounting. **(Key No. 579)**

Luminous Equipment Co., Dept. MH, 910 W. Van Buren St., Chicago, Ill.

New Models in Magic Chef Line

"Add-A-Units" are especially designed as auxiliary gas cooking equipment to batteries of Magic Chef heavy duty ranges already in operation. They may also be installed separately or in any

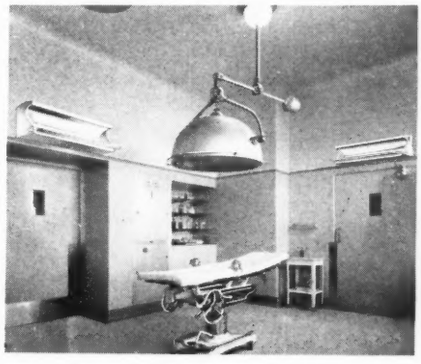
number to suit requirements. A minimum of labor and preparation is required in connecting to existing equipment and they occupy little space, according to the manufacturer.

The new models, finished in black, include two grate-top and two fry-top units for use with 35 in. and 42 in. deep ranges. Single or double deck elevated shelves are available for use with all models. Fast even heat for large or small utensils is said to be provided by two burners rated at 15,000 Btu. each full on or 2000 Btu. each at low setting. Two separate circular grates, self-draining to drip pan below, form the base of each two-burner grate frame. Concealed manifold and gas cocks, coved back top for easy cleaning, concealed bolts and storage compartments with concealed hinges and positive catch are included in all models. **(Key No. 570)**

American Stove Co., Dept. MH, 4301 Perkins Ave., Cleveland, Ohio.

Americanaire Ultraviolet Air Sterilizer

The newly developed Americanaire Ultraviolet Air Sterilizer is designed for the germicidal treatment of air in surgeries, nurseries and other departments in the hospital where there is need for such equipment. Available in two models, the Americanaire may be surface mounted or flush mounted in the wall at a suggested position of seven or eight



feet from the floor. Tests, according to the manufacturer, show that a 30 watt germicidal lamp, installed in the center of a room of 4,000 cubic feet volume in such a way as to irradiate the upper half of the room, will produce sanitary ventilation equivalent to one hundred air changes per hour.

A leaflet issued by the manufacturer includes tables and graphs illustrating the use of this germicidal lamp, in addition to discussions on the nature of air-borne bacteria, inaccessibility of air-borne bacteria, sanitary ventilation and germicidal treatment of air. **(Key No. 569)**

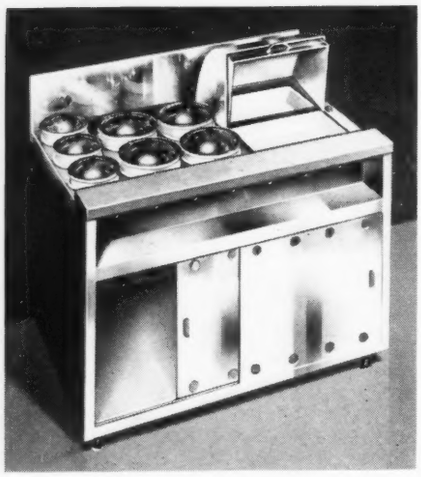
American Sterilizer Co., Dept. MH, Erie, Pa.

Coreco Automatic Camera

The Coreco automatic camera, constructed by Dr. Gustave Bucky, for any type of medical photography, takes color or black and white pictures. No specialized knowledge is required to operate this camera, it is said, and the light equipment is self-contained. The focal depth, action diaphragm opening and distance between camera and object to be photographed are automatically adjusted.

Neither tripod nor other extras are necessary, according to the manufacturer, thus minimizing the cost of each photograph. Complete in one unit, the Coreco camera is ready for use at any time. **(Key No. 572)**

Consolidated Research Corp., Dept. MH, 745 Fifth Ave., New York, N. Y.



1942 Model Steam Tables

1942 models of Bastian-Blessing steam tables have several new features. A plate shelf has been added under the cutting board and the stainless steel top is sectional so that insets can be rearranged if desired.

Also the manufacturer states that lids for soup and vegetable insets are of stainless steel in these models and that both stainless steel and porcelain enamel doors and facings are available as desired.

Heated by gas, steam or electricity for front counter use in cafeterias, these steam tables come in lengths from two to five feet. The water inlet pipe in the new model complies with all health codes, it is said, in that it is always above water level, extending through the top of the unit and then down. **(Key No. 585)**

Bastian-Blessing Co., Dept. MH, 240 E. Ontario St., Chicago, Ill.

"Kitchen King" Standard Griddles

Adaptable for intermittent service needs or peak requirements and continuous duty, the new "Kitchen King" Standard Griddles are available in three sizes, 18 inch, 24 inch and 36 inch. Sectional automatic heating controls handle each 12 inches of cooking surface but manual control operation may be obtained with three heat double pole reversible switches. The 18 inch unit employs a single control.

Ease in keeping the surface clean is provided by the full width removable grease pan at the rear of the cooking area. These griddles are furnished in standard voltages, A.C. or D.C., with 2,000 watts per 12 inch section. **(Key No. 598)**

Associated Products, Inc., Dept. MH, 275 W. Market St., Akron, Ohio.

Magni-Focuser Eye Shade

The Magni-Focuser Eye Shade is a scientifically designed instrument for precision work where the eyes are put to an extremely hard test and where both hands are needed by the operator.

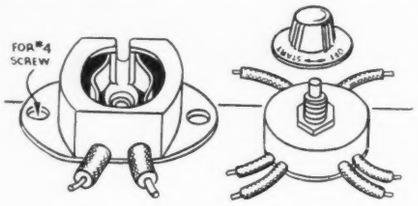
The lenses are ground from the best optical glass obtainable, according to the manufacturer, and the featherweight construction of nonbreakable, noninflammable material, adjustable head band and combination magnifier and eye shade are practical features.

Normal vision is obtainable by slight raising of the head but overhead and side glare is shut out. The instrument will fit over regular eye glasses, thus increasing vision and the prismatic lenses reduce eye strain, it is said. **(Key No. 580)**

Edroy Products Co., Dept. MH, 480 Lexington Ave., New York, N. Y.

General Electric Fluorescent Equipment

These new lamp holders and the starter switch are designed to simplify



the use of fluorescent lamps in locations requiring special attention. Designed for bed lights and instrument panel lights, the new small "Butt-on" lamp holders for Mazda "F" lamps, illustrated on the left, may be mounted either flush or surface on end plates. The mounting brackets can be adapted for special requirements. The body diameter measures ¾ inch with ½ inch in depth and leads are 6 inch stripped fixture wire.

The manual starter for Mazda "F" lamps is a combination manual switch and fluorescent lamp starter. The two lamp combination is illustrated at the right.

Both the rotary-momentary contact start and positive "off" with line current open are incorporated into the switch which returns to running position by itself after being held in start position for 3 to 5 seconds. The switch base is 15/16 inch in diameter and leads are 5 inch stripped fixture wire, two black line and two red start and two white start. **(Key No. 589)**

General Electric Co., Dept. MH, 570 Lexington Ave., New York, N. Y.

Automatic Distilled Water and Condensate Checker

An improved method of continuously measuring the conductivity of water and other electrolytes is offered in this automatic distilled water and condensate checker. The conductivity of distilled water or condensate offers a means of measuring its purity. An alarm signal, electric valve or other desired control apparatus indicates any increase in conductivity above normal. A meter on the instrument panel gives continuous conductivity reading.

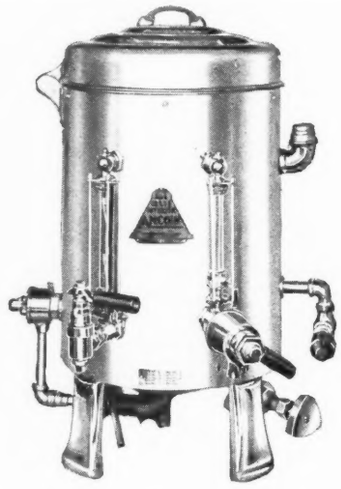
Finished in black baked enamel, the instrument is 7 inches by 12 inches by 6¼ inches deep and is ready for wall mounting. The instrument panel is fully A.C. operated. **(Key No. 604)**

Industrial Instruments, Inc., Dept. MH, 156 Culver Ave., Jersey City, N. J.

New Model Amcoin Boileret

The 1942 model Amcoin Boileret has been redesigned and modernized. This coffee maker is available in one, two, four and eight gallon sizes with capacities of 70 to 450 cups per hour. A single unit now does the work of two or three piece batteries, according to the manufacturer, since coffee can be made on coffee in this model.

The all glass interior, including dispensing route and glass lined faucets, is a sanitary feature and the drain out valve eliminates water lime, impurities



and stale water. The cover and handles have been streamlined and new faucets have been designed. The hinged cover has a condensation eliminator. The Boileret operates on gas, electricity or steam and all automatic temperature control is available. **(Key No. 599)**

Amcoin Corp., Dept. MH, 1148 Main St., Buffalo, N. Y.

Address manufacturers for further information and prices—or use Readers' Service blank on page 159

Nash Pump of Glass

A new centrifugal pump ¾ inch by 1 inch of Pyrex brand glass for laboratory requirements, with a capacity of 10 gallons per minute, has been perfected. The volute, head and rotating impeller are constructed of glass and are fully transparent. Corrosive liquids as well as other chemical compositions can be handled with this new equipment and are kept chemically uncontaminated.

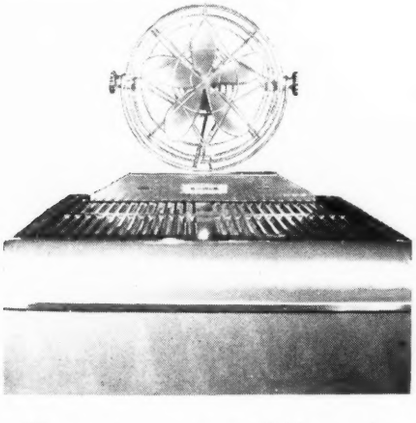
A mechanical seal and safety unloading device eliminate the possibility of fracture of the glass casing. Hot acids or brine cooled liquids are handled with equal facility. A cast iron seal and cover plate housing, coated with material resistant to acid which might be handled, protect the glass parts.

The new pump will handle 600 gallons of acid or other liquid per hour. A static pressure of 10 pounds per square inch with a discharge pressure up to 23 pounds per square inch is provided with the glass impeller rotating at 3500 r.p.m. **(Key No. 594)**

Nash Engineering Co., Dept. MH, South Norwalk, Conn.

Roto-Heat-Beam

The Roto-Heat-Beam is designed for use with space heaters employing oil, coal, gas or wood as fuel. Through draftless circulation, uniform temperature is maintained throughout the area to be heated. Economy in fuel consumption is said to be accomplished through utilization of all of the heat.



The equipment is available in three sizes, 10, 12 and 16 inch Roto-Beam propellers with standard 110 volt A.C. motors. Air movement ranges from 750 to 5200 cubic feet per minute, depending upon the model and switch position desired. **(Key No. 613)**

Peerless of America, Inc., Roto-Beam Div., Dept. MH., 333 N. Michigan Ave., Chicago, Ill.

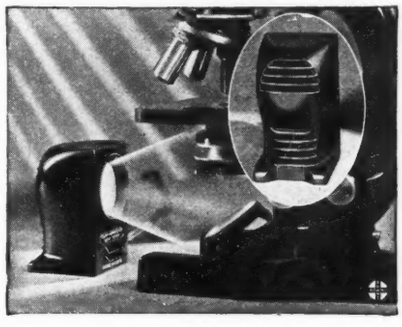
Pyrex Brand Petri Dishes

Two new sizes have been added to the line of Pyrex brand Petri Dishes. The 60 mm. by 15 mm. and 150 mm. by 20 mm. dishes increase the line to five sizes. They are of the same style as the three sizes already available and incorporate the same qualities of high chemical stability, transparency, and greater resistance against thermal and mechanical shock. **(Key No. 587)**

Corning Glass Works, Dept. MH, Corning, N. Y.

Adams Scopelite

The new Adams Scopelite can be used either in front of the microscope or, with mirror removed, as a substage lamp. Of molded Bakelite, it is durable and practically unbreakable.



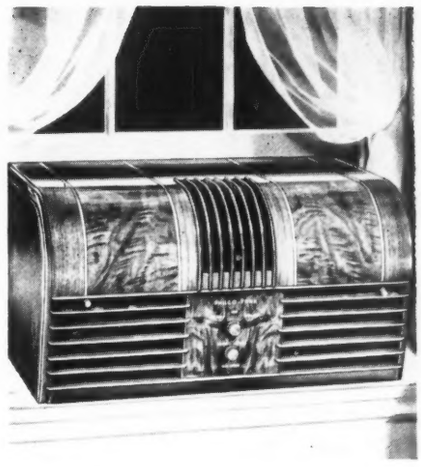
The concave reflector serves to intensify the light and prevent its escape. Front and rear louvers cause free circulation of air without loss of light so that the lamp can be handled even after extended use. It is said that uniform illumination approximating daylight is provided by the frosted daylight filter. The Scopelite comes complete with 6 foot cord and plug. **(Key No. 578)**

Clay-Adams Co., Inc., 44 E. 23rd St., New York, N. Y.

Howell's Vegetable Cocktail Base

Howell's Vegetable Cocktail Base is a new product made from dehydrated tomatoes and concentrated vegetable juices combined with vegetable proteins. The manufacturer states that it takes 68 pounds of fresh tomatoes to make 1 pound of dehydrated flakes. Two to 3 teaspoonfuls added to a 5 ounce glass of ice water is said to make an economical and appetizing vegetable cocktail. **(Key No. 554)**

Warren L. Howell Co., Dept. MH, 701 N. Western Ave., Chicago, Ill.



Philco-York Air Conditioner

The Philco-York self-contained air conditioner for individual rooms is said to provide fresh, clean, filtered air in any volume desired up to 475 cubic feet per minute. Humidity can be controlled so that the circulated air gives a comfortable atmospheric condition. Dust, dirt and pollens are shut out by an especially treated filter. Outside noises are also excluded.

One control switch regulates the volume of air flow to provide the desired cooling capacity and humidification. The directional air adjustment avoids drafts in the distribution of the air. A complete change of room air is said to be accomplished in a matter of minutes.

The conditioner cools the air or provides fresh, filtered air without cooling during fall, winter and spring. It is automatic and quiet in operation, according to the manufacturer. Four models provide the necessary air conditioning with a capacity for any size room from 150 square feet to 500 square feet. The conditioner is compact, easily installed and does not require plumbing, pipes or wiring. Moisture taken from the air is expelled outside in vapor form. **(Key No. 577)**

Philco Radio and Television Corp., Dept. MH, Philadelphia, Pa.

Little Giant Drum and Barrel Carrier

The Little Giant drum and barrel carrier was designed for handling drums used as containers of heavy materials with capacity up to 600 pounds. Accidents are prevented in handling by the lifting device and the self-balancing three wheeled design of these carriers which can be operated, it is said, with one hand. **(Key No. 586)**

Ernst Magic Carrier Sales Co., Dept. MH, 1456 Jefferson Ave., Buffalo, N. Y.

Address manufacturers for further information and prices—or use Readers' Service blank on page 159

Pharmaceuticals

Stilrone, Abbott

Stilrone, Abbott (diethylstilbestrol) is a synthetic estrogenic substance suitable for use in cases requiring estrogenic treatment. The manufacturer states that experiments with animals showed the synthetic material to duplicate, in the main, all the known actions of natural estrogens. It is widely used in the treatment of conditions amenable to therapy with natural estrogenic substances. The largest group of cases requiring this treatment comes from menopausal symptoms arising either in the natural way or as a result of oophorectomy. The drug has also been used in the treatment of senile vaginitis, kraurosis vulvae, leukoplakia and pruritus vulvae associated with menopausal or post-menopausal state.

Caution must be employed in the use of this powerful new synthetic drug and patients receiving treatment should be under continuous medical supervision.

Stilrone is supplied in plain or coated tablets in varying sizes in bottles of varying quantities, also in Stilrone vaginal suppositories and in oil ampules. **(Key No. 608)**

Abbott Laboratories, Dept. MH, North Chicago, Ill.

Sandoz Syrup Neo-Calglucon

Syrup Neo-Calglucon for oral use provides a highly concentrated (27.5 per cent) liquid preparation of calcium. Orange flavoring is added to the calcium gluconate product to improve the taste. Each gram contains 0.27 gm. calcium gluconogalactogluconate, the average adult dose of one tablespoonful two or three times daily being equivalent in calcium to 4 gm. calcium gluconate.

Ready absorption from the digestive tract, it is said, is possible because of the high solubility. Syrup Neo-Calglucon can also be used to supplement parenteral administration of the ampule solution to secure continued calcium effects and reduce the frequency of injection.

Dosage varies from the adult dose of approximately one tablespoonful two or three times daily, to one teaspoonful for infants and small children. It can be taken undiluted or with warm water, sugar water or fruit juices. Syrup Neo-Calglucon is available in bottles of three fluid ounces, eight fluid ounces or one quart. **(Key No. 609)**

Sandoz Chemical Works, Inc., Dept. MH, 68 Charlton St., New York, N. Y.

Squibb Stilbestrol

Squibb Stilbestrol is a synthetic estrogen possessing the physiologic properties of estrogenic substances derived from natural sources. Stilbestrol orally is said to have a ratio of effectiveness to intramuscular injection much superior to that possessed by natural estrogens. Another advantage reported is that it is more economical.

Used in alleviating the vasomotor symptoms of the menopause, estrogenic substances are also used in treating gonorrheal vaginitis in children, senile vaginitis and in preventing and relieving painful engorgement of the breasts during the supression of lactation.

Stilbestrol is supplied in three forms: Compressed tablets for oral administration containing 0.1 mg., 0.5 mg., 1.0 mg. or 5.0 mg., Stilbestrol in oil for intramuscular injection and pessaries in two sizes: 0.5 mg. for adults and 0.1 mg. for children. **(Key No. 496)**

E. R. Squibb & Sons, Dept. MH, 745 Fifth Ave., New York, N. Y.

Gadoment Ampules

Gadoment, available in a new small sized ampule, is a cod liver oil ointment containing carbolic acid with fluid extract benzoin and zinc oxide in a wax base. It is used for ambulatory burns, indolent burns, friction burns, varicose ulcers, decubitus ulcers and eczemas.

The manufacturer recommends that the oil be spread on wax paper and then applied to the wound and kept in place with bandage of adhesive tape. The wax paper prevents the absorption of the oil and thus reduces possible oxidation of the ointment, at the same time it protects clothing from oil stains due to seepage. **(Key No. 612)**

E. L. Patch Co., Dept. MH, Boston, Mass.

Mecholyl Chloride, Merck

Mecholyl Chloride (Acetyl-Beta-Methylcholine Chloride, Merck) is administered by the method of Ion Transfer (iontophoresis). This product is used in the treatment of chronic ulcers, Raynaud's disease, scleroderma, chronic rheumatoid arthritis and in vasospastic conditions of the extremities. **(Key No. 567)**

Merck & Co., Inc., Dept. MH, 161 Sixth Ave., New York, N. Y.

RECENT CATALOGS AND BOOKLETS

• A 60-page booklet entitled **"The Scope of Sanitation"** has recently been issued by the West Disinfecting Company, 42-16 West St., Long Island City, N. Y. The Foreword states, "Disinfectants, insecticides, liquid soaps, paper towels, cleaners, deodorants and appliances for their proper use constitute some of the major classifications of products made by this company. All products are designed for the promotion of sanitation." Each chapter is devoted to a discussion of the purposes of the above mentioned types of products, followed by information on the qualities and uses of specific products. **(Key No. 574)**

• The ninth edition of the Bard catalog, **"Urological Instruments,"** is a 20 page booklet illustrating and describing the complete line of Bardex and Bardam instruments. Recently issued by C. R. Bard, Inc., 79 Madison Ave., New York, N. Y., the two opening pages describe the American made ureteral catheters. A complete index on the inside back cover makes it easy to locate illustration and description of any desired instrument in the line. Each item is numbered and a loose leaf page enclosed gives prices of the instruments in numerical order for ready reference. **(Key No. 590)**

• A series of six beautiful prints of **"Old English Hospitals"** lithographed in eight colors is available to physicians and hospitals through Petrogalar Laboratories, Inc., 8134 McCormick Blvd., Chicago, Ill. Each one is an excellent reproduction of the original rare print and is worthy of inclusion in fine print collections or adapted to framing for hospital walls especially in the doctors' conference room or library. The fifth print to appear in The Modern Hospital, Chelsea Hospital, will be found following page 16 of this issue. As they are published a limited number will be available without advertising and matted suitable for framing. A request from a hospital should be made by the administrator of the hospital. **(Key No. 573)**

• Combustion Service Co., 1451 Broadway, New York, N. Y., has a limited number of complimentary copies of its booklet, **"Burning Fuel Oil,"** for distribution to owners and engineers in charge of oil-fired plants. Request should be made on a hospital letterhead. This booklet discusses grades of fuel oil, atomization, combustion, use of chemical catalysts, efficient oil firing, fuel oil testing, specifications for fuel oil conditions and other items of interest to the users of oil burning equipment. **(Key No. 253)**

Address manufacturers for further information and prices—or use Readers' Service blank on page 159

• A revised and enlarged edition of **"Betterway Washing Talks"** has been issued by H. Kohnstamm & Co., Inc., 87 Park Place, New York, N. Y., in a 42 page booklet. As the name indicates, this was originally designed as talks to hospital executives on the operation of the laundry. The new edition contains discussions on water, soaps, bleaches, sours, rinsing, bluing and sizing. Paragraphs on lime soap formation on the washwheel, rust spots and discolorations and the functions of the water softener are included. The handling of rayon, blankets, silks and other materials is discussed and various problems arising in the laundry are covered. Fifty questions and answers on washroom practice and fifty questions and answers on starch and starching give practical help to the laundry manager as well as to the administrator. **(Key No. 591)**

• The American Sterilizer Co., Erie, Pa., has issued a 16 page booklet, **"The Central Supply and Sterilizing Department,"** pointing out the advantages in efficiency and economy of operation of a centralization of sterile supplies. The booklet gives a practical layout plan for a central supply room with equipment needed, materials to be handled, requisition methods and labeling. Proper sterilization and saving of time and effort are said to be some of the results of this system. All sterile supplies except instruments and water for the surgery, obstetrical and out-patient departments should be sterilized in central supply, according to this plan, and full responsibility given to the personnel. Located at some readily accessible part of the building convenient to elevators and preferably with dumb waiter service to various floors, the department should be self-contained to eliminate outside personnel. All supplies and materials should enter at the receiving end and be delivered only from the sterile storage door, to save confusion. The booklet is well illustrated. **(Key No. 592)**

• Folders describing how **Slicechief Machines slice, flake or shred** all types of vegetables, fruits and nut meats are being distributed by Slicechief Co., Litchfield, Mich. The machines are made in three sizes, the largest being motorized. **(Key No. 466)**

• A **"Vitamin Food Chart"** issued by The Cream of Wheat Corp., Minneapolis, Minn., gives natural food sources of Vitamins A, B, C, D, and G and also includes E, P-P, K and B-6. Functions of each of the vitamins are mentioned at the top of each column. The company offers to send a copy of this chart to any hospital dietitian or administrator requesting it. **(Key No. 582)**

(Continued on page 160)

TO HELP YOU get information quickly on new products we have provided the convenient form below. Just check the items of interest to you, fold as indicated and mail—No Postage Required.

Tear off on perforated line

Fold down on this line

Fold up on this line and seal

Send Me further information on the following items I have checked.

- ☐ 163 Aluminum Ladder Co.
- ☐ 252 "Special Hardware for Metal Cabinets"
- ☐ 253 "Burning Fuel Oil"
- ☐ 463 "Rapid Guide Handbook"
- ☐ 466 Slicechief Machines
- ☐ 469 "The Legal Aspects of Floor Wax Maintenance"
- ☐ 496 Squibb Stilbestrol
- ☐ 514 "He Wants Clean Silver"
- ☐ 515 "Water Treatment for Low Pressure Boilers"
- ☐ 523 "Olson Electric Glass Washers"
- ☐ 531 Amsco Pan-O-Pad Bed Pan Cushion
- ☐ 532 Sweetland Bed Cradle
- ☐ 554 Howell's Vegetable Cocktail Base
- ☐ 567 Mecholyl Chloride, Merck
- ☐ 568 Kathabar System for Air Conditioning
- ☐ 569 Americanaire Ultraviolet Air Sterilizer
- ☐ 570 New Models in Magic Chef Line
- ☐ 571 Centralinear Control Unit
- ☐ 572 Coreco Automatic Camera
- ☐ 573 "Old English Hospitals"
- ☐ 574 "The Scope of Sanitation"
- ☐ 577 Philco-York Air Conditioner
- ☐ 578 Adams Scopelite
- ☐ 579 New Model of Peters Universal Hospital Light
- ☐ 580 Magni-Focuser Eye Shade
- ☐ 581 "50 Recipes Serving 50"
- ☐ 582 "Vitamin Food Chart"
- ☐ 583 "Marlite Pre-Finished Wall Panels"
- ☐ 585 1942 Model Steam Tables
- ☐ 586 Little Giant Drum and Barrel Carrier
- ☐ 587 Pyrex Brand Petri Dishes
- ☐ 589 General Electric Fluorescent Equipment
- ☐ 590 "Urological Instruments"
- ☐ 591 "Betterway Washing Talks"
- ☐ 592 "The Central Supply and Sterilizing Department"
- ☐ 594 Nash Pump of Glass
- ☐ 595 Oxford Pendaflex Filing Method
- ☐ 596 Anchor Clip System
- ☐ 597 LCN Door Closers
- ☐ 598 "Kitchen King" Standard Griddles
- ☐ 599 New Model Amcoin Boileret
- ☐ 600 Bleach Making Machine for Laundries
- ☐ 604 Automatic Distilled Water and Condensate Checker
- ☐ 605 New Size in Trane Turbo-Vacuum Compressor
- ☐ 608 Stilrone, Abbott
- ☐ 609 Sandoz Syrup Neo-Calglucon
- ☐ 612 Gadoment Ampules
- ☐ 613 Roto-Heat-Beam
- ☐ 614 Towel Shelf and Utility Rack

I would also like to have information on the following products

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STREET _____

CITY _____ **STATE** _____

• **"The Legal Aspect of Floor Wax Maintenance,"** a folder distributed by the Franklin Research Co., 5134 Lancaster Ave., Philadelphia, Pa., contains two reprints. One, on "Slippery Customers," gives a comprehensive study of the subject of lawsuits occasioned by falling. It tells how a floor owner may protect himself against claims arising from negligence on the part of the plaintiff when the accident happens on a floor maintained with an approved and nationally recognized floor wax. The second reprint presents a few precautions to observe when using a water emulsion wax. **(Key No. 469)**

• A folder on **"Water Treatment for Low Pressure Boilers"** is distributed by American K.A.T. Corp., 221 E. 42nd St., New York, N. Y. Written in question-and-answer form, it explains the conditions that require water treatment, differences in various types of cleansing agents and the methods that have proved successful in maintaining trouble-free operation of boilers. **(Key No. 515)**

• **"He Wants Clean Silver,"** a small folder from Paul F. Kraeft, 137 Franklin St., Jersey City, N. J., illustrates and describes Kraeft silver burnishing machines **(Key No. 514)**

• **"Marlite Pre-Finished Wall Panels"** is the title of the 1942 catalog in full color, issued by Marsh Wall Products, Inc., Dover, Ohio. Attractively illustrated, this catalog shows Marlite wall panels, tile patterns, marble patterns, Carstenite wood veneer, Marsh colored plastic moldings and Marsh extruded white alloy moldings. Illustrations are shown of the various products installed in lobbies, offices, kitchens and bathrooms and specifications and methods for installation are given. Included on page 2 are a description of Marlite, a hard but flexible synthetic glazed surface permanently integrated to a treated Masonite tempered presdwood base, and swatches showing the wide range of colors available. **(Key No. 583)**

• New folders distributed by the Olson Glass Washer Mfg. Co., Albert Lea, Minn., state that the **"Olson Electric Glass Washer"** can handle 1000 sparkling, lusterized glasses an hour. **(Key No. 523)**

• **"Rapid Guide Handbook,"** from Smooth-On Mfg. Co., 568 Communipaw Ave., Jersey City, N. J., describes Smooth-On cements and their uses. This 40 page booklet contains diagrams and instructions for sealing cracks, preventing or stopping leaks in apparatus, making tight pipe joints and patching concrete floors and walls. **(Key No. 463)**

• The catalog of the **Aluminum Ladder Co.,** Tarentum, Pa., shows that it manufactures all types of aluminum ladders. Among those described are scaffold ladders, which may be used separately or with staging for cleaning and decorating. Aluminum ladders, it is claimed, "reduce fire hazards since this metal does not throw a spark." **(Key No. 163)**

• A 28 page catalog from P. & F. Corbin, New Britain, Conn., describes and illustrates **"Special Hardware for Metal Cabinets."** Locks, latches, hinges and other hardware for patients' lockers, narcotic and specimen cabinets, nurses' call systems, x-ray equipment and cabinets, blanket warmers, instrument cabinets and other cabinets are shown. **(Key No. 252)**

• A set of quantity recipe cards, **"50 Recipes Serving 50,"** is offered to dietitians by the Home Economics Department of the Pet Milk Co., St. Louis, Mo. Attractively printed on 4 by 6 cards, these recipes are suitable for filing. The quantity recipe for fifty is on the face and a recipe for the same dish for six for special diet use is printed on the reverse side. Enclosing the fifty cards is a folder, on the back of which the various recipes are indexed according to type of food. **(Key No. 581)**

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